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Architectural Appointments Wanted and Vacant

No. 3407] [Vol. 132

THE ARCHITECTURAL PRESS

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Registered as a Newspaper.

★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to Ii one week, Il to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: J.H.Holden, College of Art, Cavendish Street, Manchester 15	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5533
ABT	Association of Building Technicians. 156, Waterloo Road, S.E.1.	Waterloo 5427
ACGB	Arts Council of Great Britain. 4, St. James's Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Langham 5861
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Langham 5721
BC	Building Centre, 26, Store Street, Tottenham Court Road, W.C.1.	Museum 5400
BCC	British Colour Council. 13, Portman Square, W.1.	Welbeck 4185
BCCF	British Cast Concrete Federation. 105, Uxbridge Road, Ealing, W.5.	Ealing 9621
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham	Redditch 716
BDA	British Door Association. 10, The Boltons, S.W.10.	Fremantle 8494
BE	Building Exhibition. 11, Manchester Square, W.1.	Hunter 1951
BEDA	British Electrical Development Association, 2 Savoy Hill, W.C.2.	Temple Bar 9434
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Whitehall Gardens, Horseguards Avenue, Whitehall, S.W.1.	Trafalgar 8855
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 4040
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. British Standards House, 2, Park St., W.1.	Mayfair 9000
CABAS	City and Borough Architects Society. C/o S. A. G. Cook, A.R.I.B.A., Borough Architect and Director of Housing, Town Hall, High Holborn, W.C.1.	Holborn 3411
CAS	County Architects' Society. C/o S. Vincent Goodman, F.R.I.B.A., Shire Hall, Bedford.	Bedford 67444
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Belgravia 6661
CDA	Copper Development Association. 55, South Audley Street, W.1.	Grosvenor 8811
COID	Council of Industrial Design. 28, Haymarket, S.W.1.	Trafalgar 8000
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.1.	Sloane 4280
CUC	Coal Utilization Council. 3, Upper Belgrave Street, S.W.1.	Sloane 9116
CVE	Council for Visual Education. 13, Suffolk Street, Haymarket, S.W.1.	Reading 72255
DIA	Design and Industries Association. 13, Suffolk Street, S.W.1.	Whitehall 0540
EJMA	English Joinery Manufacturers' Association (Incorporated). Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors. 68, Gloucester Place, W.1.	Welbeck 9966
FASS	Federation of Associations of Specialists and Sub-Contractors, 14, Bryanston Street, W.1.	Welbeck 1781
FBBDO	Fibre Building Board Development Organization Ltd. (Fidor), Stafford House, Norfolk Street, W.C.2.	Covent Garden 3008
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	Regent 0221
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Sloane 1002
FDMA	The Flush Door Manufacturers Association Ltd. Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 33, John Street, W.C.1. Tel.: Chancery 7583 (6 lines)	
FPC	The Federation of Painting Contractors, St. Stephen's House, S.W.1.	Whitehall 3902
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4341
GPDA	Gypsum Plasterboard Development Association. 11, Ironmonger Lane, E.C.2.	Monarch 8888
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Belgravia 4321
GG	Georgian Group. 2, Chester Street, S.W.1.	Belgravia 3081
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors, 29, Belgrave Square, S.W.1.	Belgravia 3755
ICA	Institute of Contemporary Arts. 17-18, Dover Street, Piccadilly, W.1.	Grosvenor 6186
ICE	Institution of Civil Engineers. 1, Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, Victoria Embankment, W.C.2.	Covent Garden 1871
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215
IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.	Sloane 8266
IHVE	Institution of Heating and Ventilating Engineers. 49, Cadogan Square, S.W.1.	Sloane 1601/3158
IIBDID	Incorporated Institute of British Decorators and Interior Designers. 37, Soho Square, W.1.	Gerrard 5056

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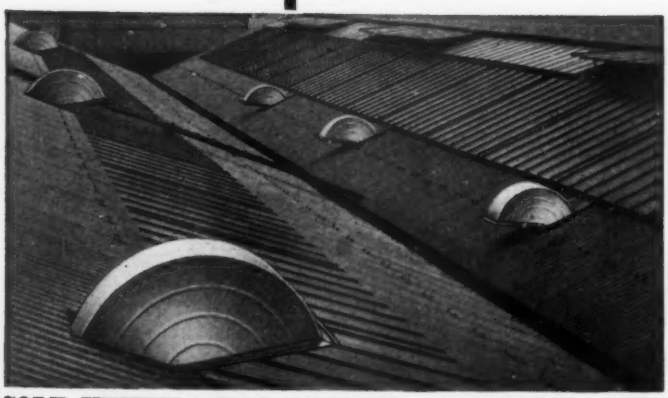
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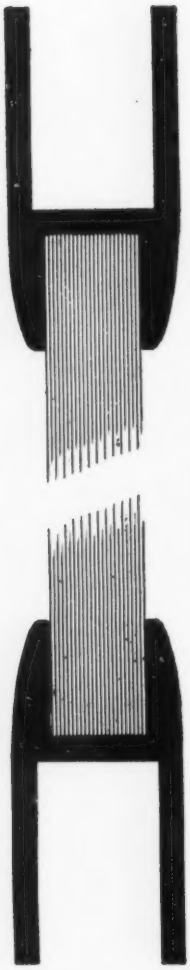
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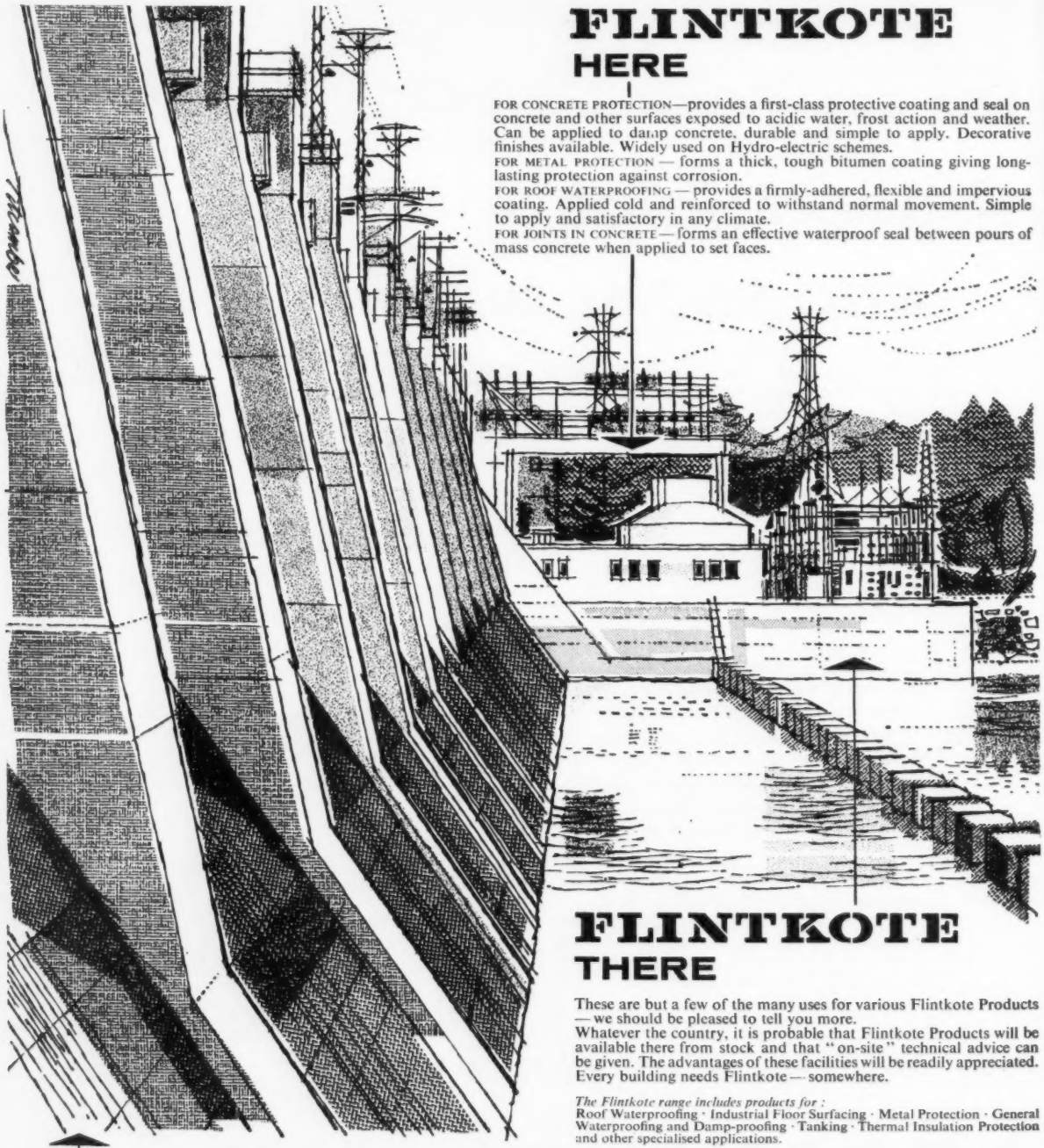
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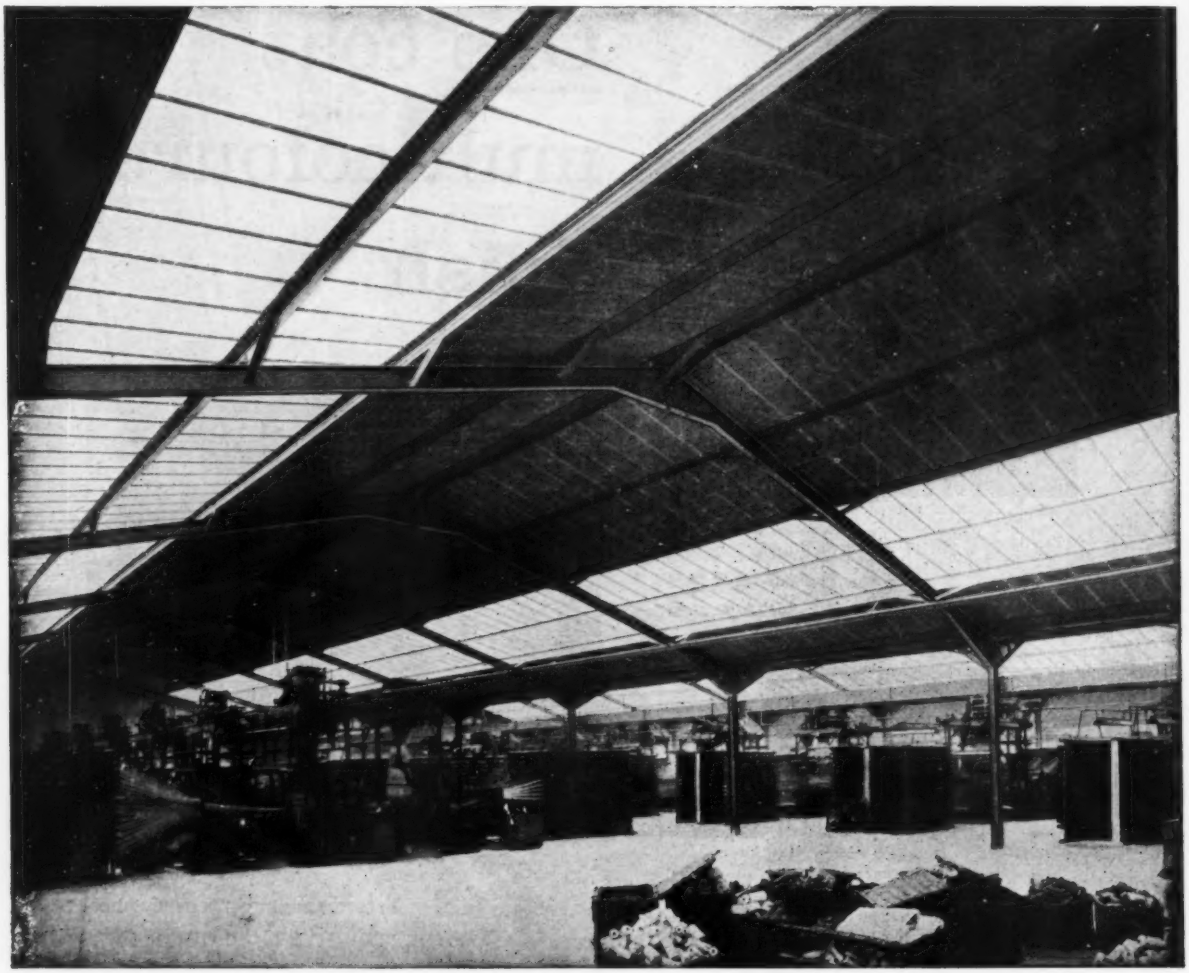
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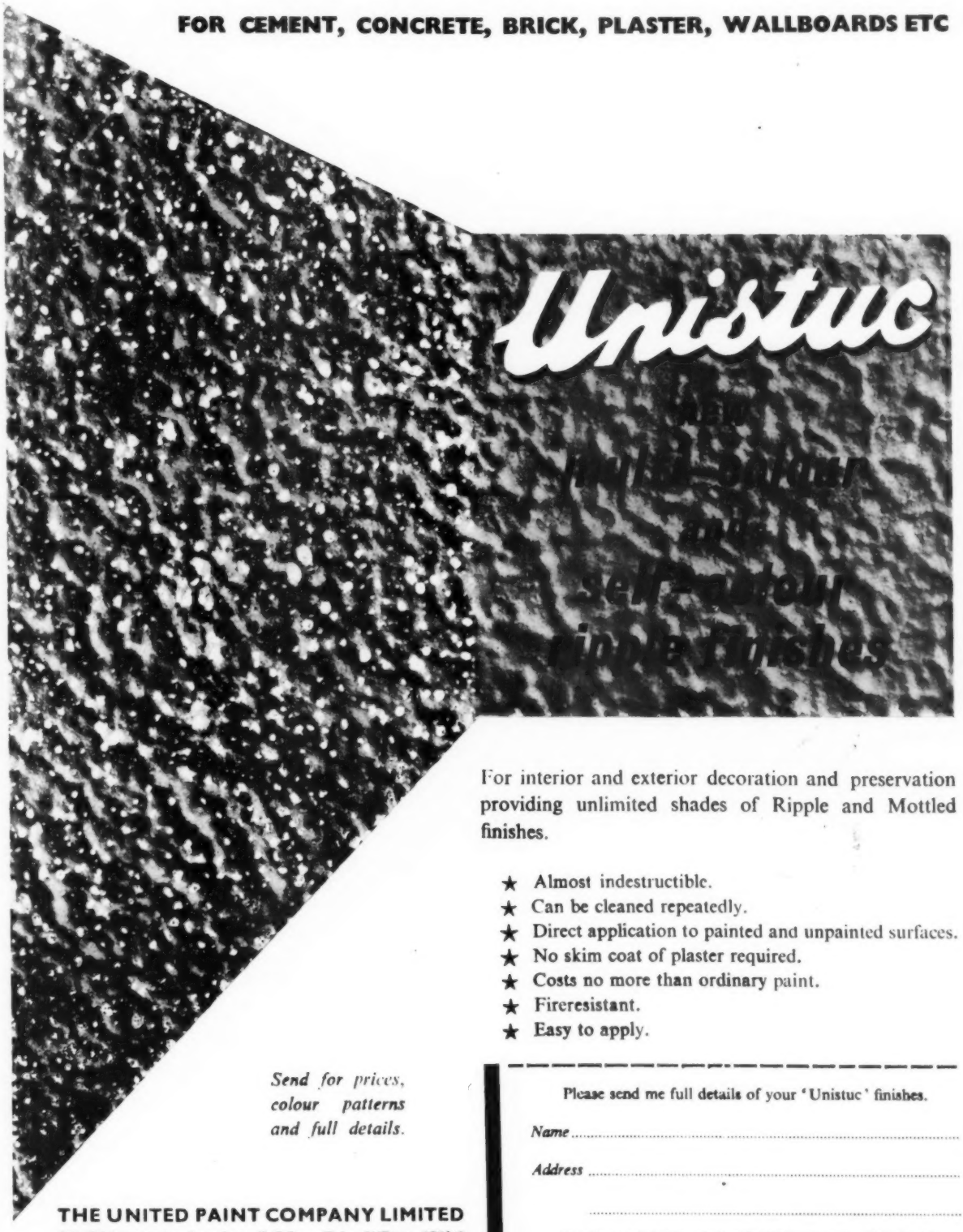
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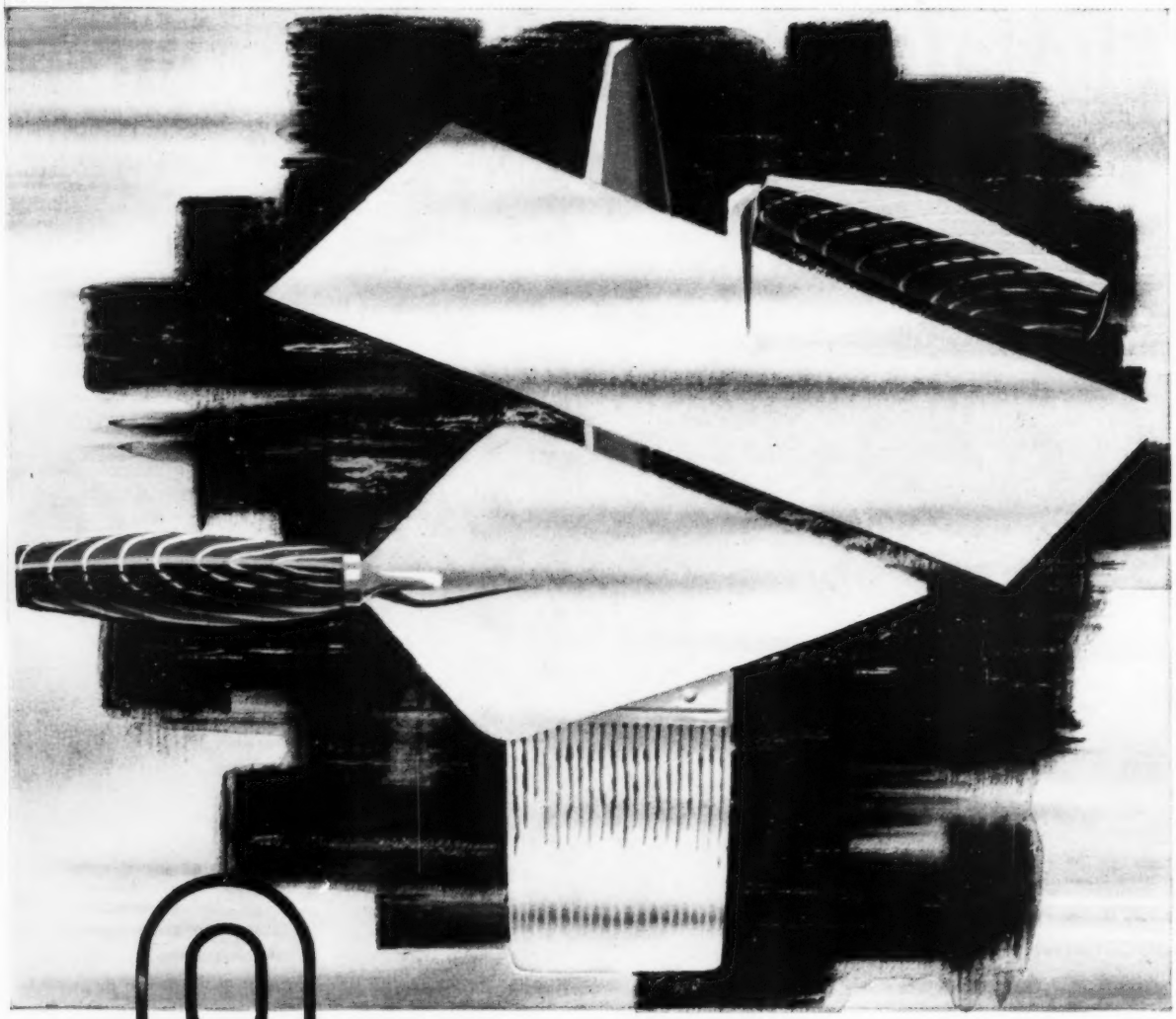
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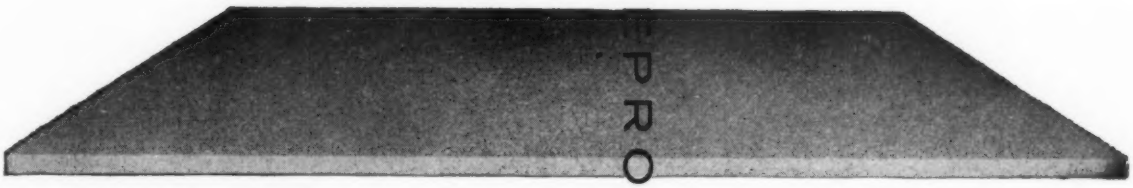
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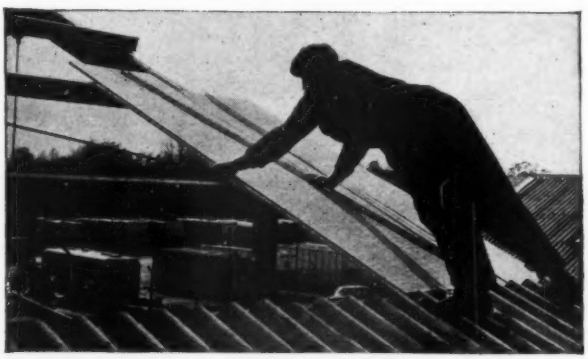
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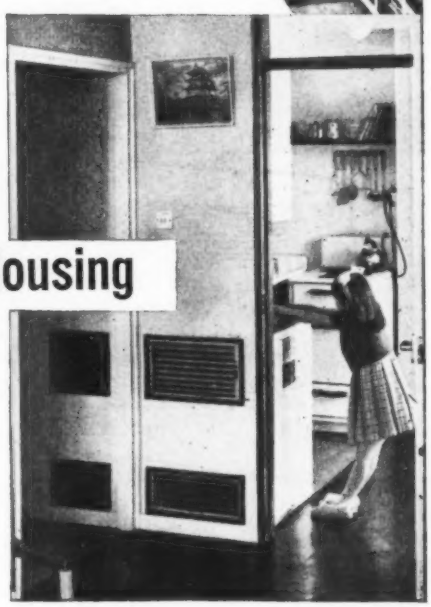
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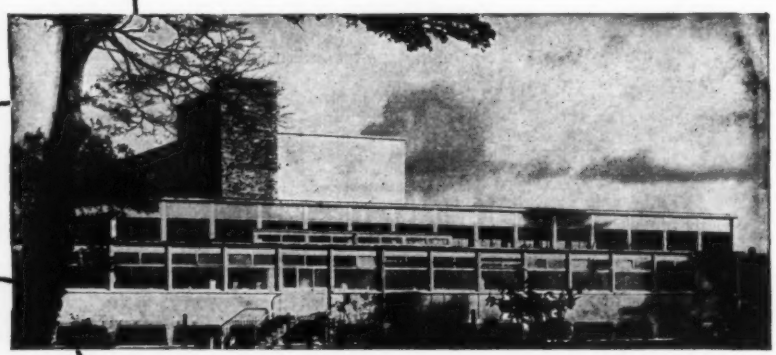
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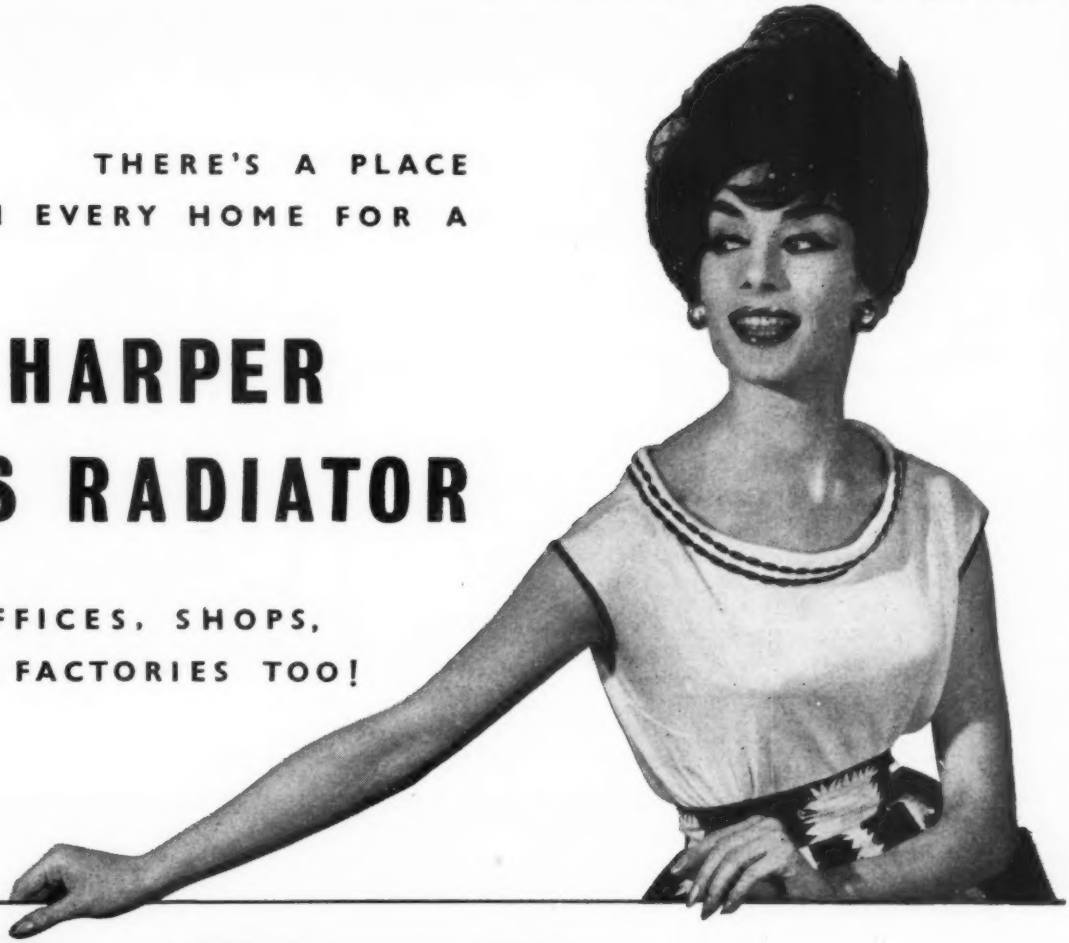
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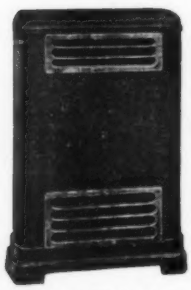
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Model No. 3161. *Finish —Base and body heat resisting coinage bronze paint. Baffle vitreous enamelled. Louvres cream vitreous enamelled. Burner—cast iron with luminous bray jets.* ¼*in. gas inlet, can be fitted for R.H. or L.H. feed. Governor — constant pressure. Gas Consumption—18 cu. ft. per hour at* 2½ *in. W.G. Maximum Output per hour* 8,100 *B.Th.U. at* 500 *c.v. Dimensions—Height* 29½ *in. Width* 17½ *in. Depth* 7 *in. Weight* 42 *lb.*



Model No. 3160. *Finish —Heat resisting coinage bronze. The top louvre and the door (which has concealed hinges) are cream vitreous enamelled. Burner—cast iron with luminous bray jets.* ½ *in. B.S.P. inlet for R.H. or L.H. feed. Governor—Constant pressure. Gas Consumption* 12 *cu. ft. per hour at* 2½ *in. W.G. Maximum Output per hour—*5,400 *B.Th.U. at* 500 *c.v. Dimensions—Height* 25 *in. Width* 17 *in. Depth* 6½ *in. Weight* 31½ *lb.*

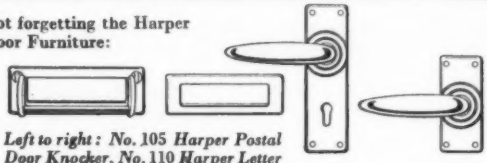


Model No. 4008. *Finish —Base and body heat resisting coinage bronze or pearl blue. Baffle vitreous enamelled. Louvres cream vitreous enamelled. Burner—Cast iron with luminous bray jets.* ¼ *in. gas inlet can be fitted for R.H. or L.H. feed. Governor—Constant Pressure. Gas Consumption—*8 *cu. ft. per hour at* 2½ *in. W.G. Maximum Output per hour—*3,600 *B.Th.U. at* 500 *c.v. Dimensions—Height* 20⅛ *in. Width* 2⅛ *in. Depth* 5¾ *in.*

Harper radiators make planning so much easier, blend happily with most colour schemes yet they're economical and require virtually no maintenance. No wonder they're specified by leading architects throughout the country.

Also makers of Grey, Meehanite and S.G. Iron Castings.

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Left to right: No. 105 *Harper Postal Door Knocker, No.* 110 *Harper Letter Plate, No.* 135 *Harper Mortice Lock and No.* 130 *Mortice Latch.*

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'Perspex' acrylic sheet for modular ceiling lighting fittings

Modular fittings with opal 'Perspex' diffusers meet the lighting requirements of modern office blocks with low ceiling heights. The diffusing covers of modular fittings are often large and must be designed so that they do not sag. Studies on the "creep" properties of 'Perspex' provide the necessary data to ensure trouble-free operation over very many years.

'PERSPEX'

'Perspex' is the registered trade mark for the acrylic sheet manufactured by I.C.I.



Equipment used at the T.S. & D. Department, I.C.I. Plastics Division, to measure the "creep" characteristics of 'Perspex' acrylic sheet.

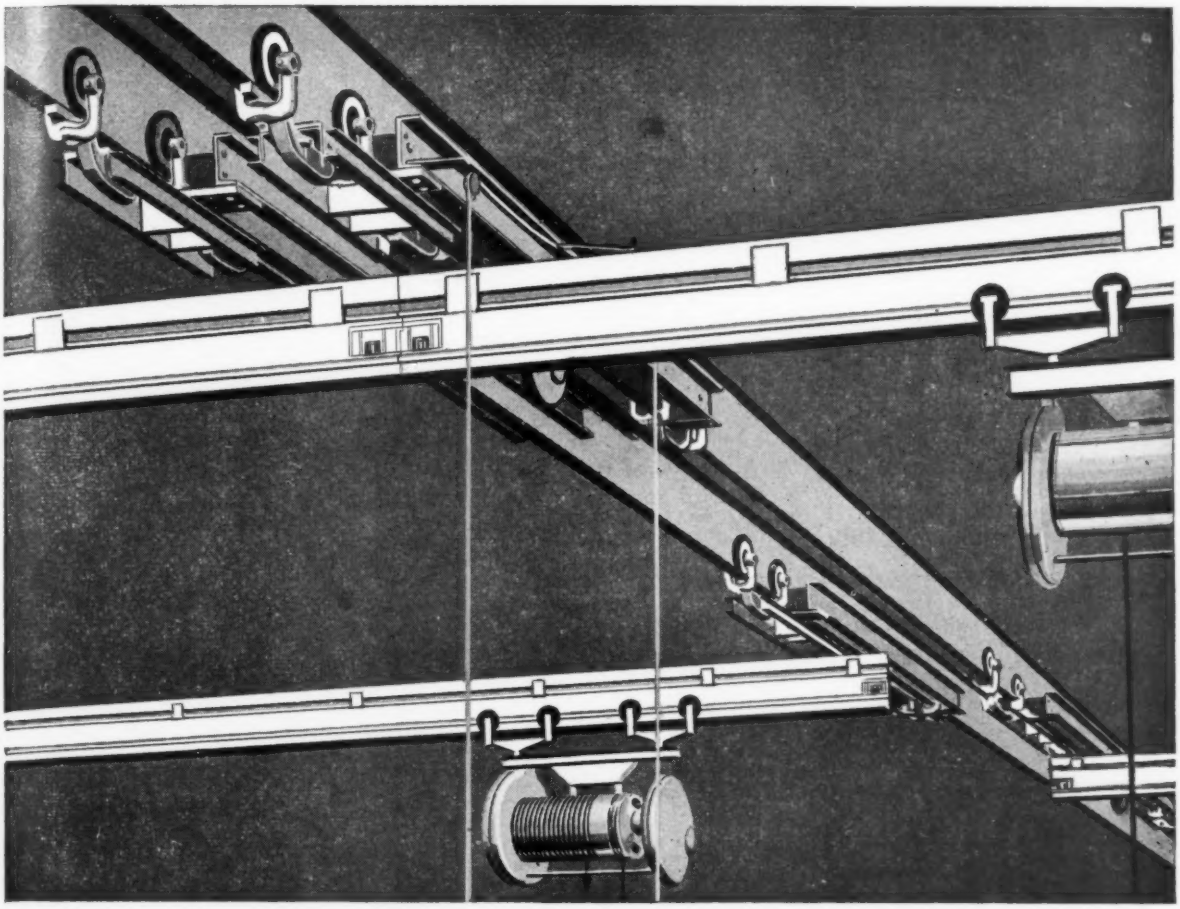


Modular ceiling lighting fittings with opal 'Perspex' diffusing panels made by the General Electric Company Limited, installed in the Midland Bank Ltd., High Holborn.

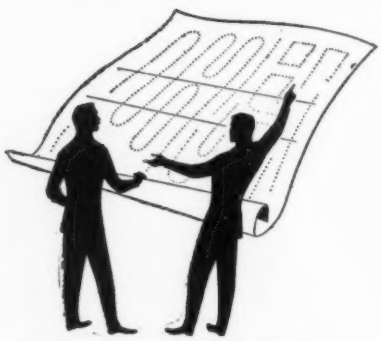
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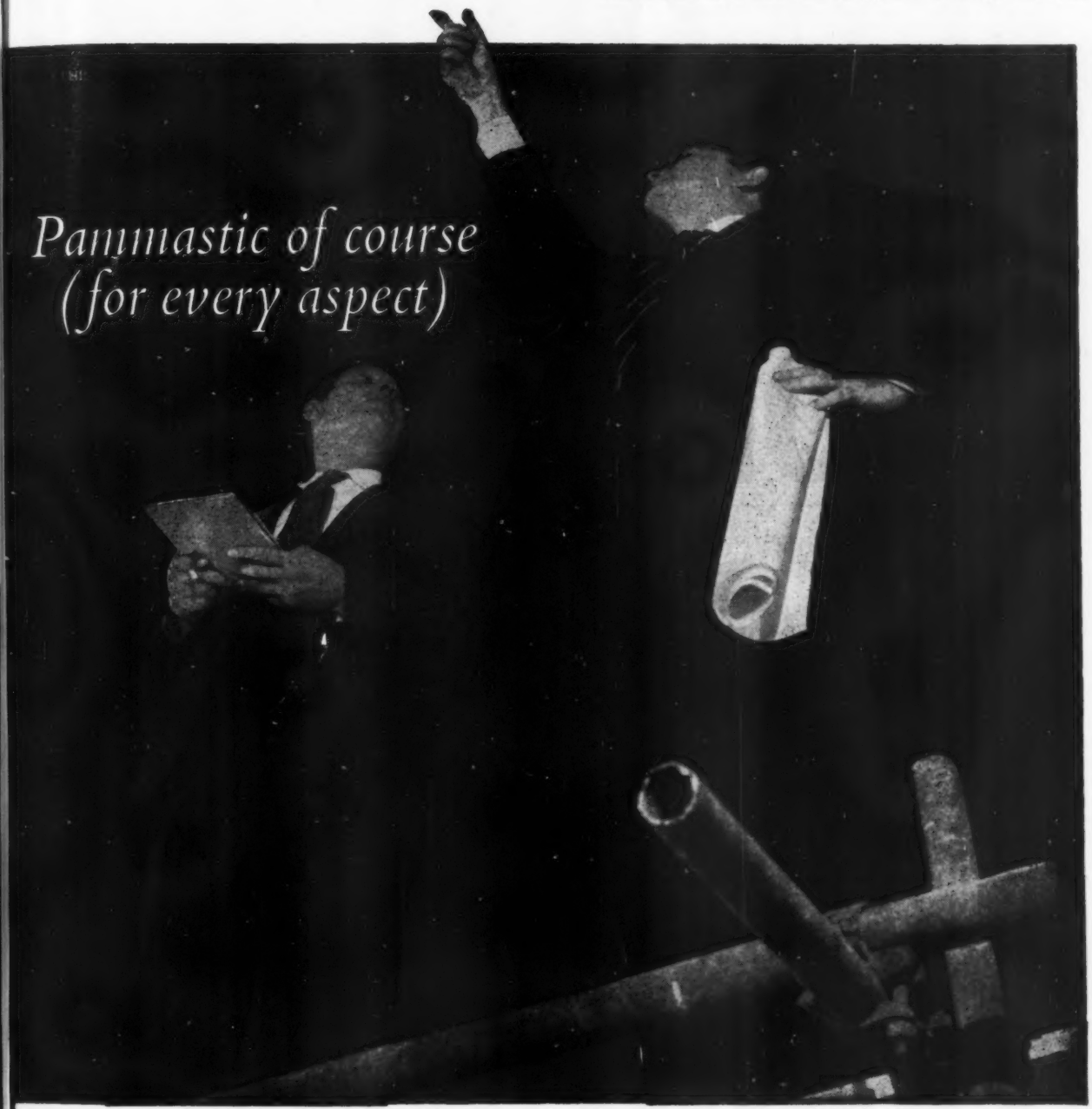
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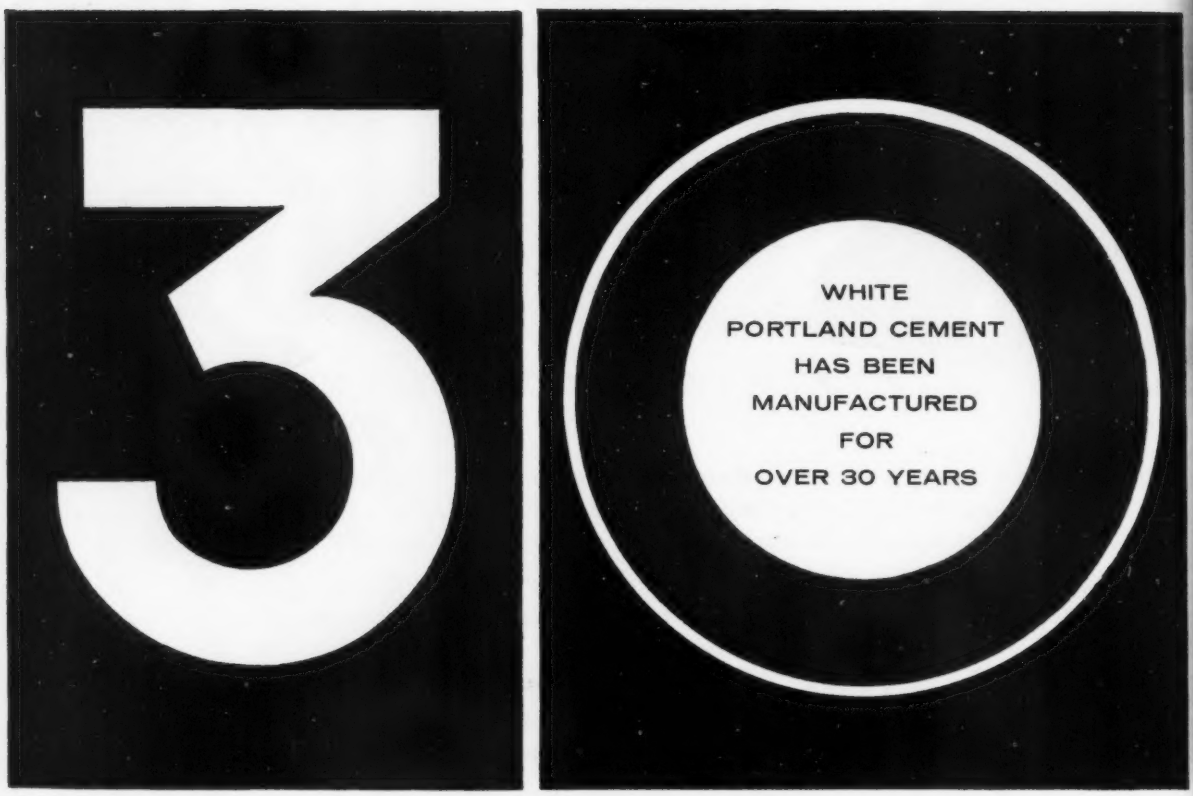
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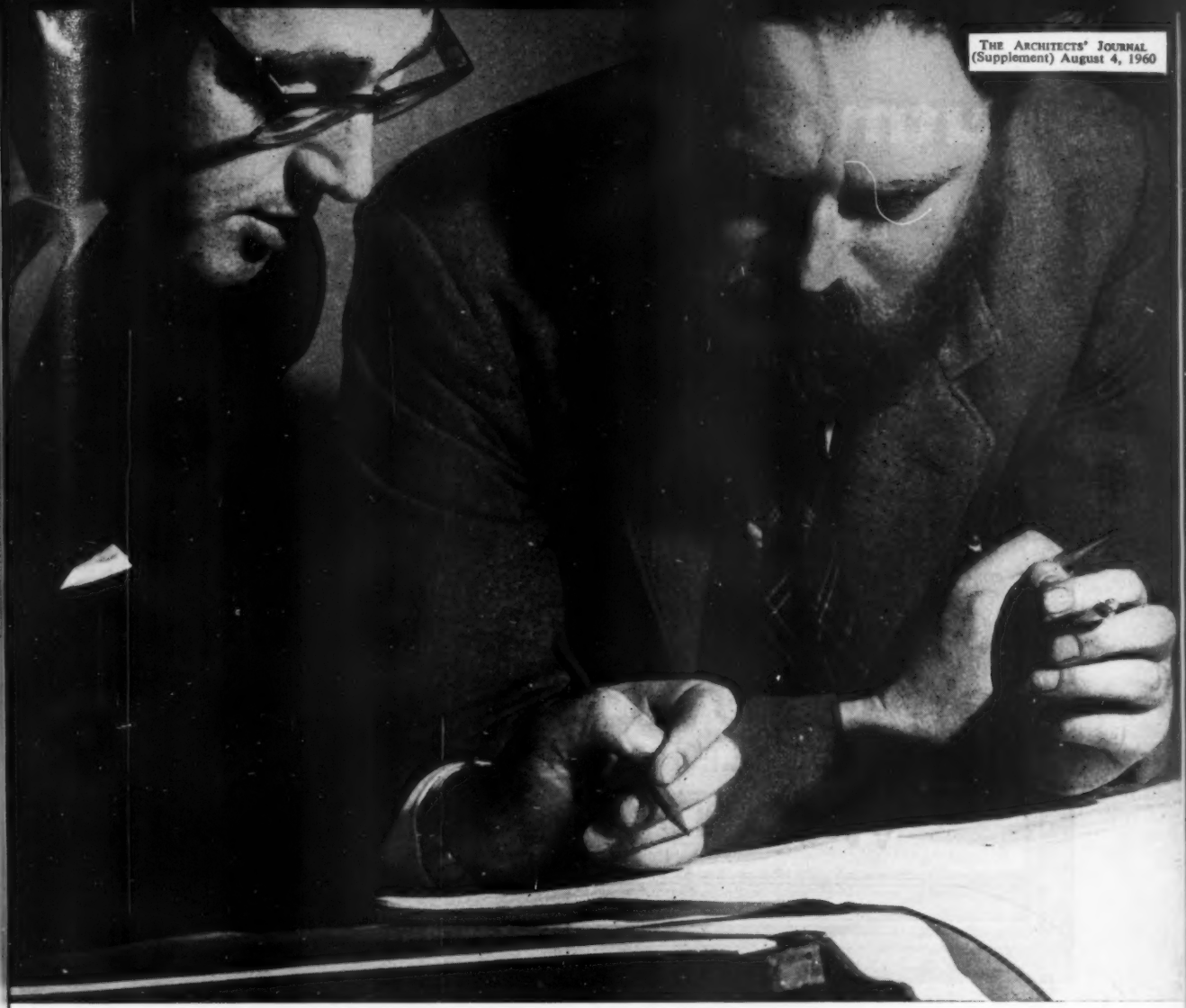


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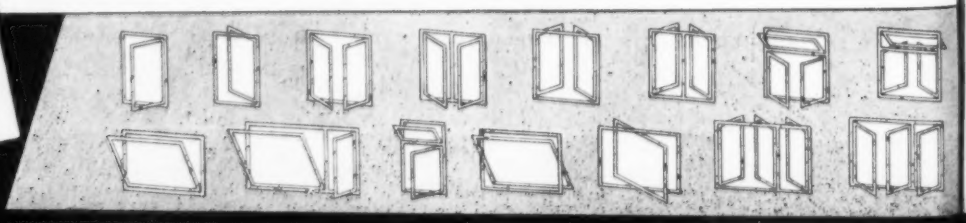
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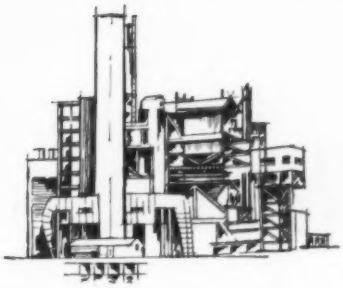
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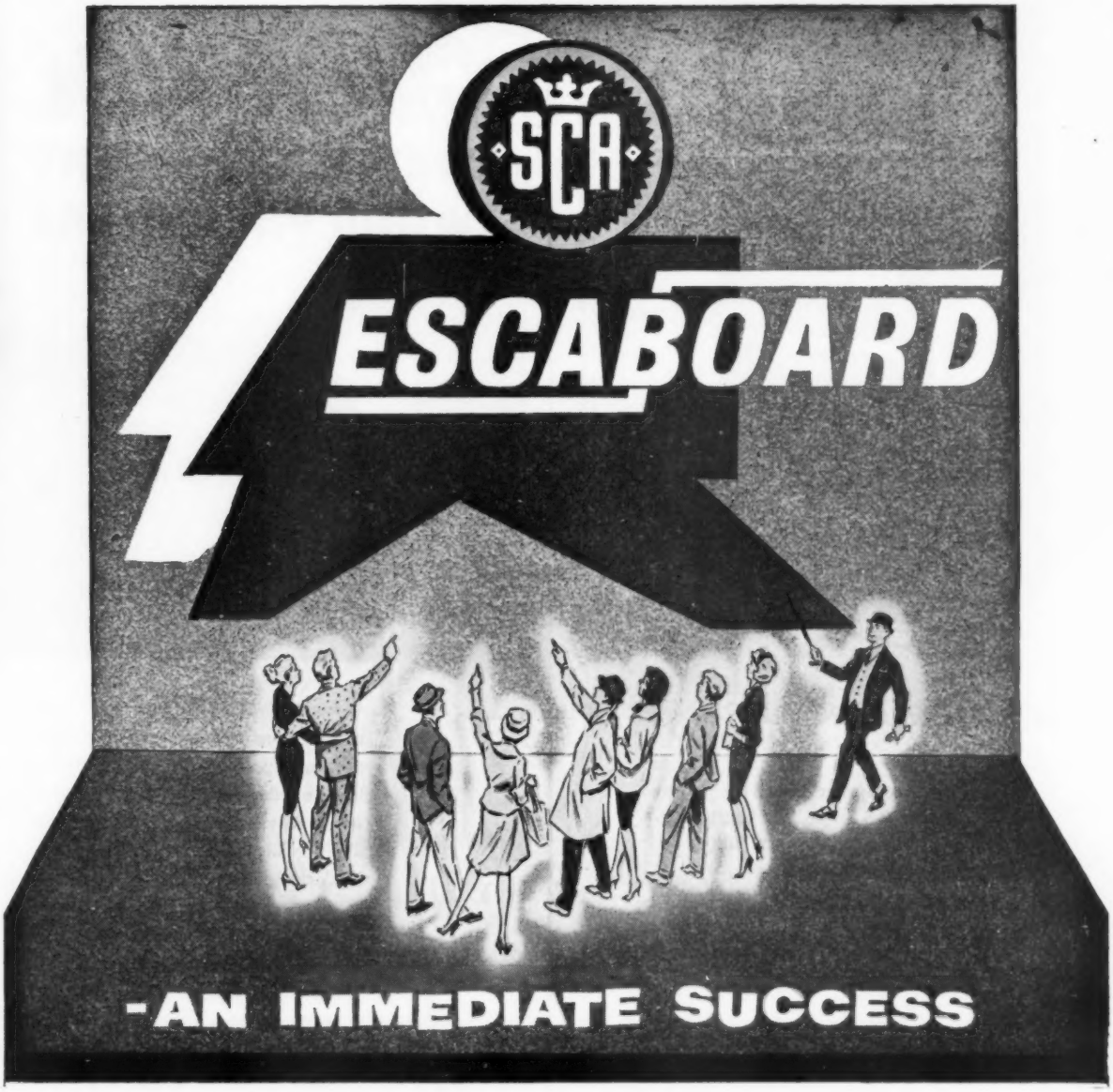
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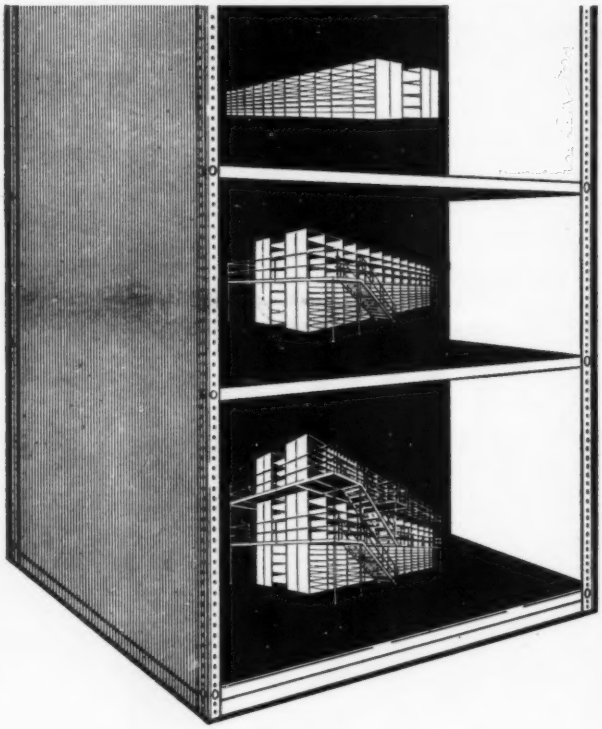
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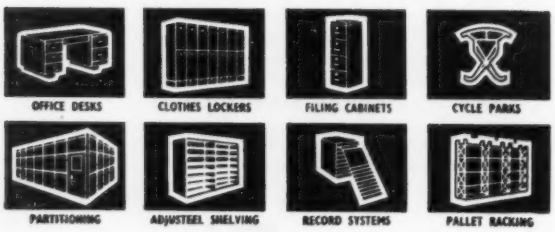
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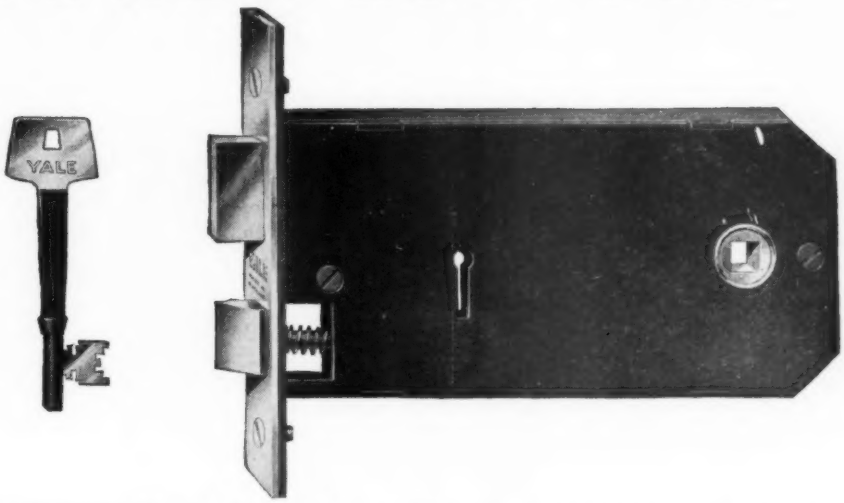
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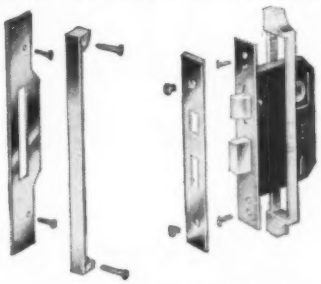


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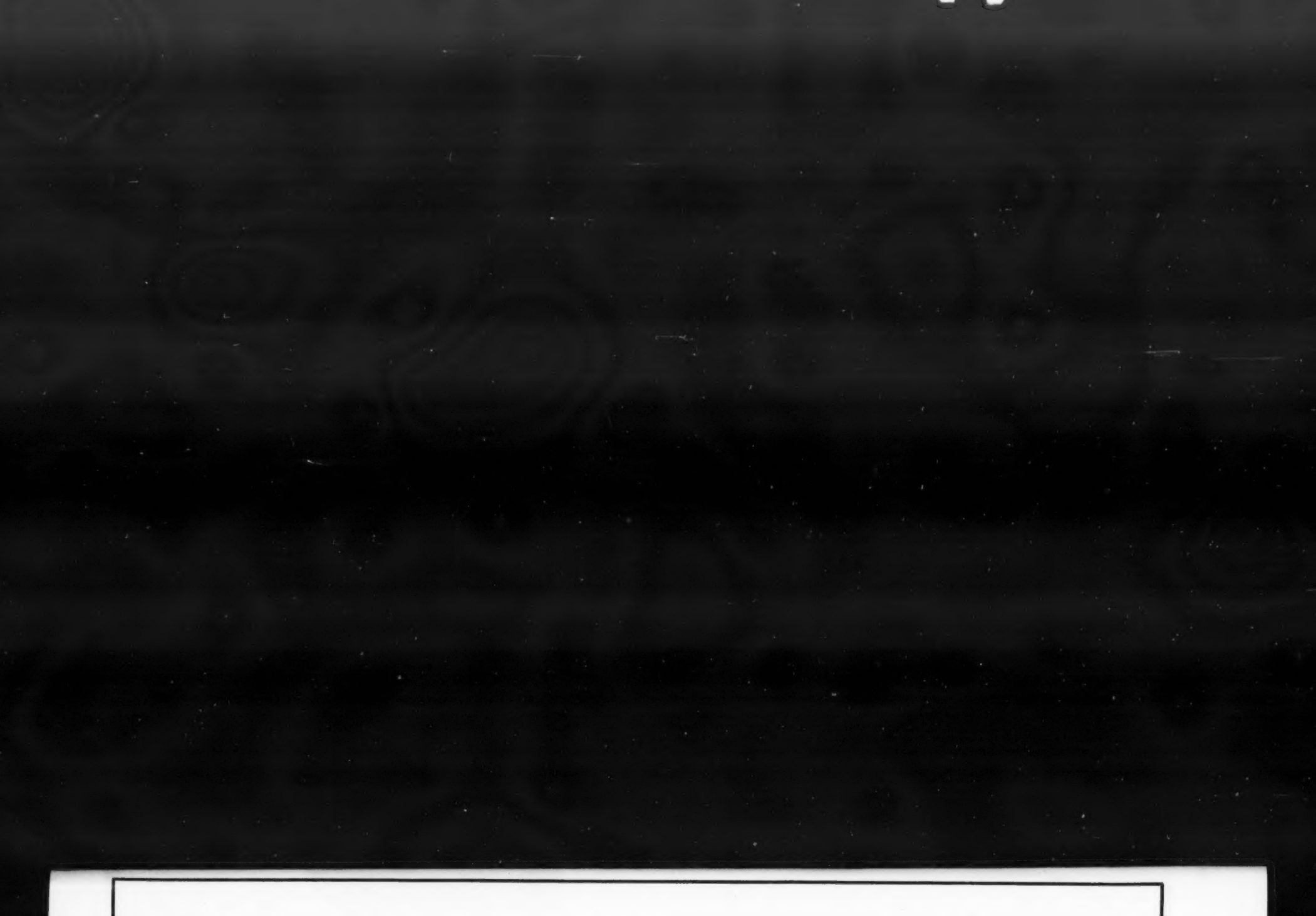
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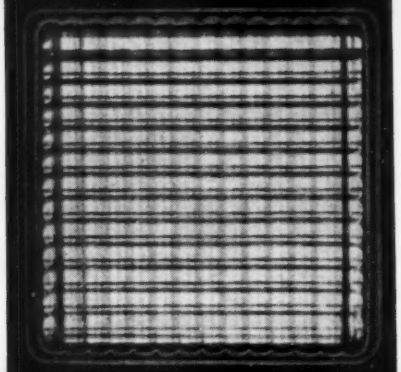
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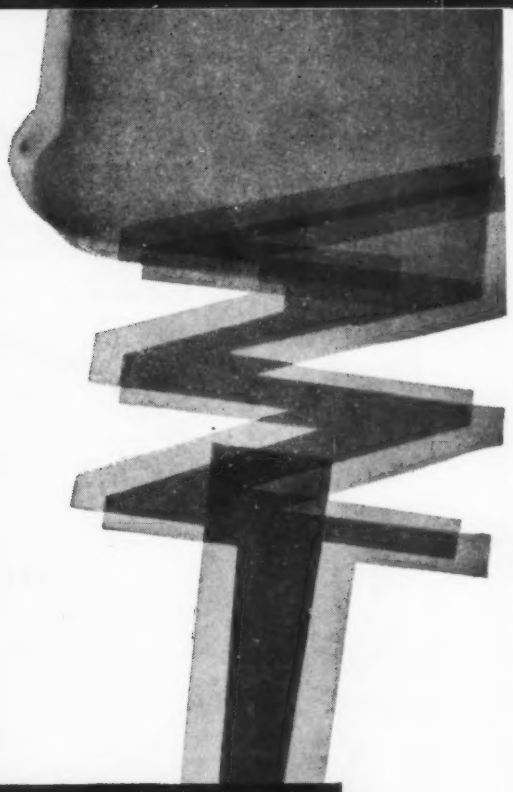
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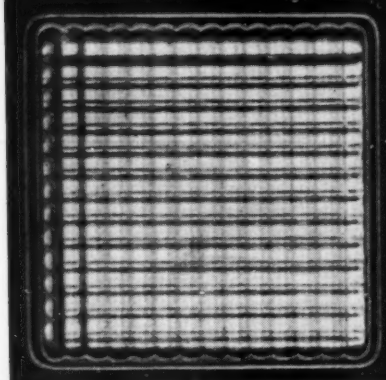
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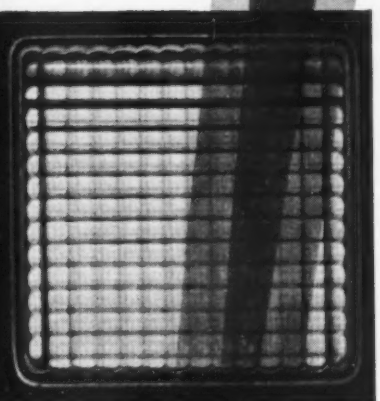






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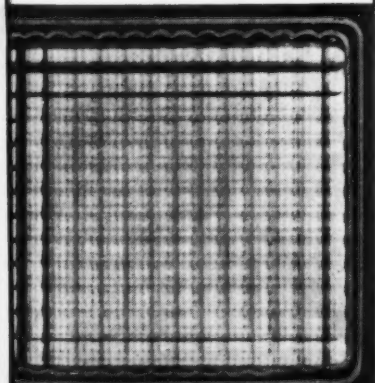




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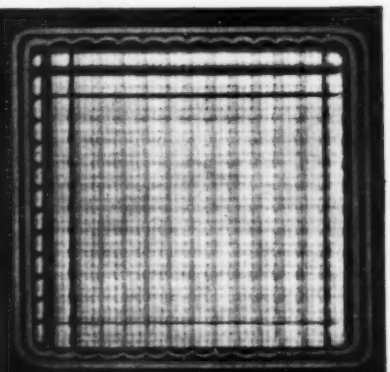


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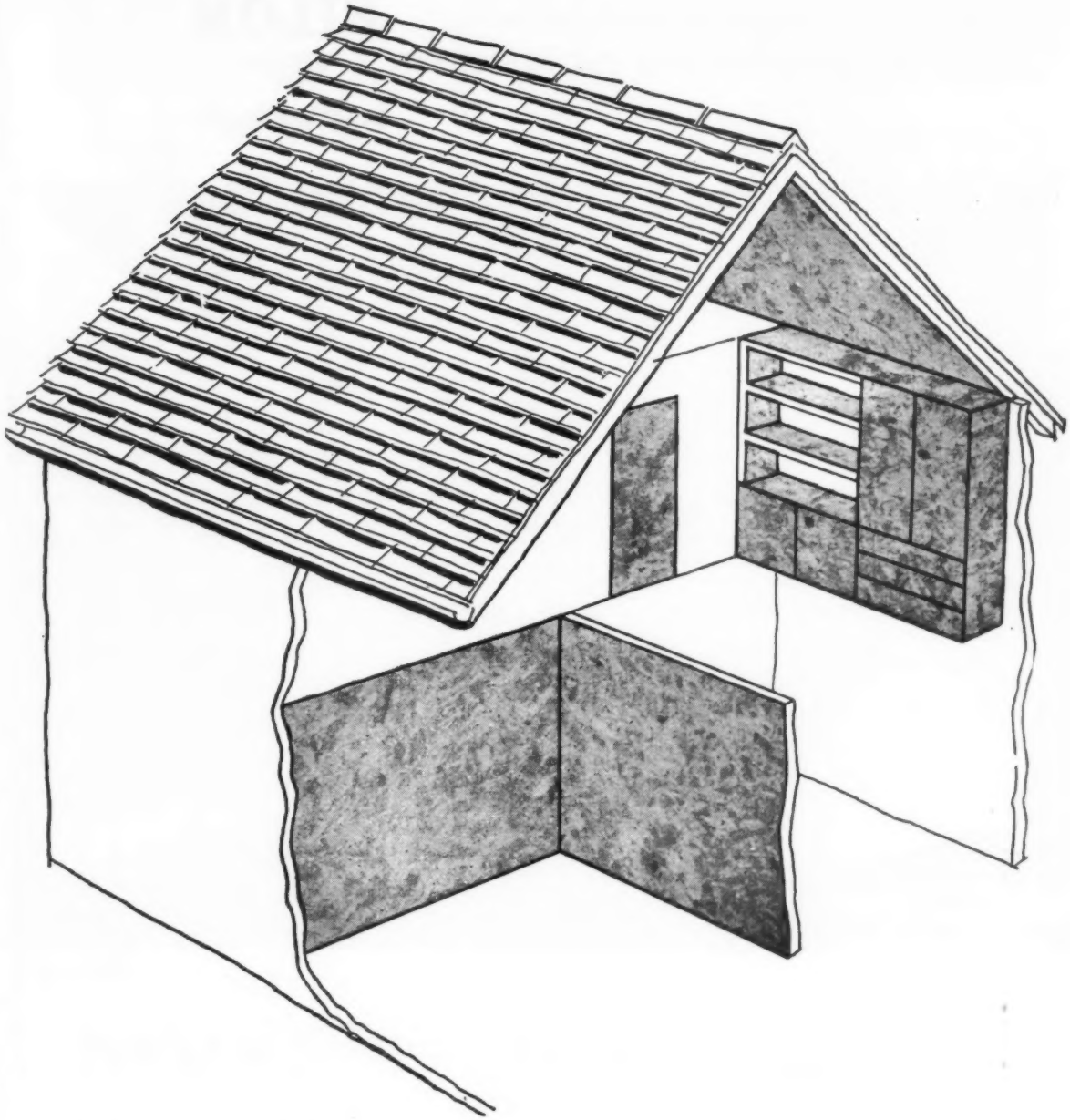
Always 'at the ready'

It has many others—but why not write for Publication 1005A? It contains much useful information.

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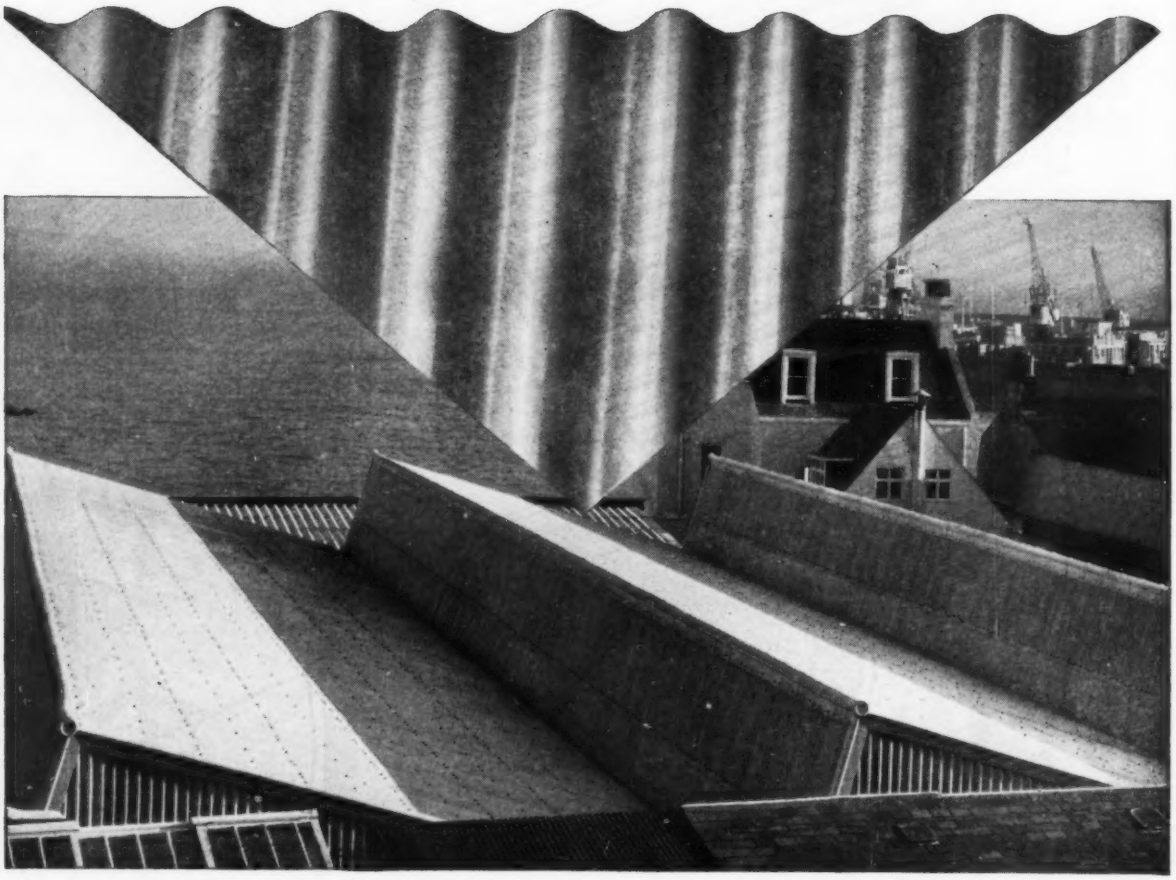
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FILON installed in Messrs. Bucktrouts' premises, Jersey, used for bottling and storage of wines and spirits and for storing tobacco.

the economical translucent structural sheeting—

FILON is economical because it is simple to install, so light to transport and handle. It passes up to 85% of light, is non-corrodible and virtually indestructible; it is of uniform strength throughout and can be obtained in any length required because it is made by a continuous process.

FILON is ideal for rooflights, cladding and canopies in many kinds of buildings and it is available in flat sheet (in roll form if required) or in standard profiles to match corrugated iron, aluminium and asbestos sheeting. FILON is approved by Local Authorities, Ministry of Works, the Admiralty, War Office and Air Ministry. Write for full details.

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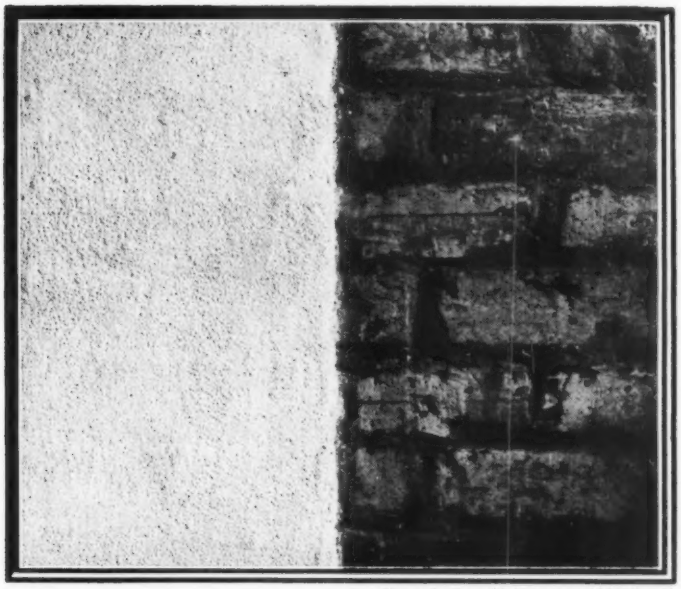
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A COAT OF STONE. . .



Above: 2 coats of Silexine on old brickwork

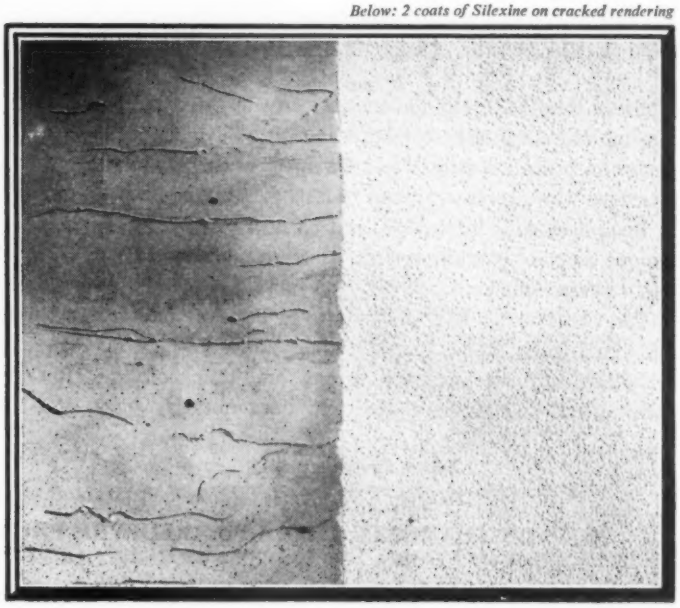
Beautifies and Protects New Buildings and Creates New Buildings from Old

SILEXINE is ideal for Stucco, Cement, Brickwork, etc. on the *exterior* of buildings giving a * water repellent, durable textured finish with CHARACTER and EYE APPEAL. SILEXINE hides imperfections and flaws, disguises pointing, improves bad or cracked rendering and is water repellent. Available in 13 permanent colours.

** Building Research Report available on application.*

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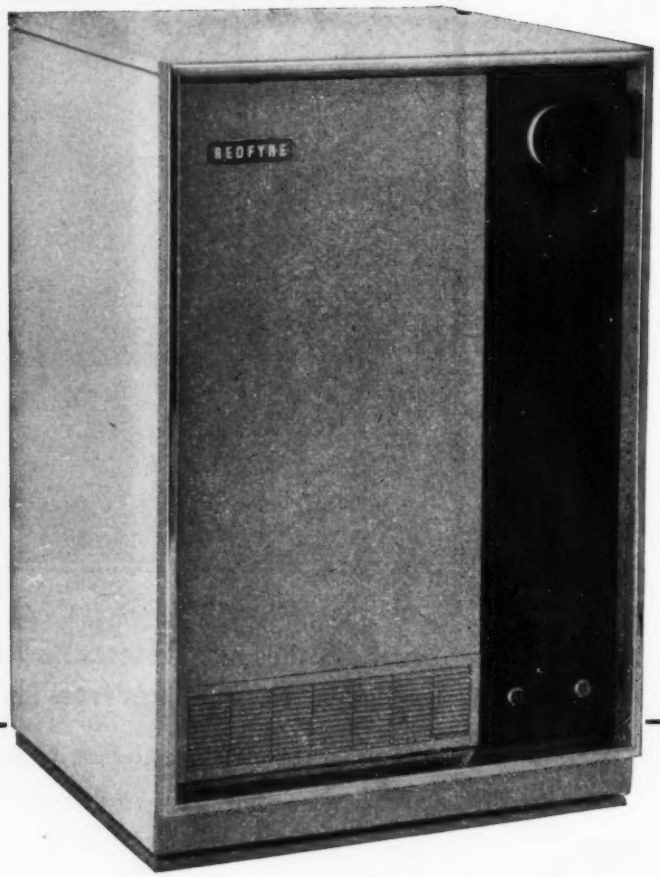
Below: 2 coats of Silexine on cracked rendering



Full details, shade card and applied sample on request to the sole manufacturers

DENTON EDWARDS PAINTS LTD.

Abbey Road, Barking, Essex. RIPpleway 3871



The new REDFYRE CENTRAMATIC REGD. makes oil-fired central heating the *natural* choice for three or four bedroomed houses

The new Redfyre Centramatic 50 can provide full central heating and ample domestic hot water for a three or four bedroom house on as little as 25/'s worth of fuel a week averaged over the year. It can do this partly because it is thermostatically controlled, and partly because of its unique electric ignition system which completely cuts out wasteful idling.

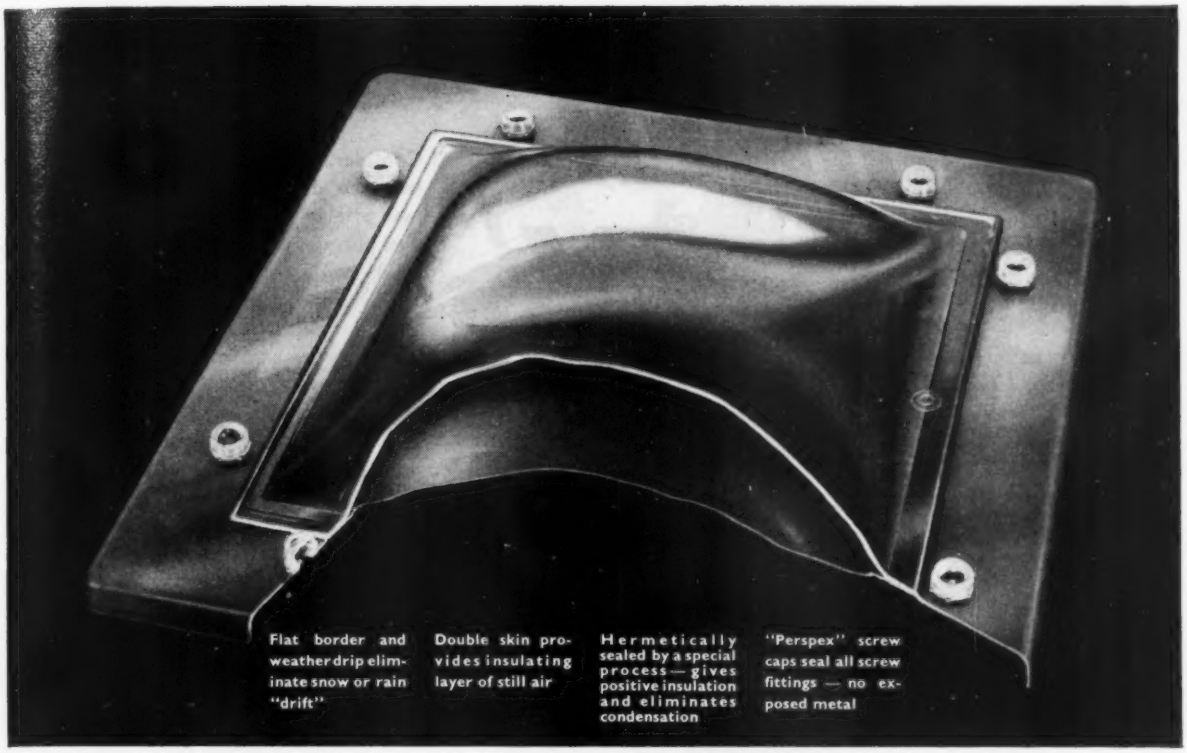
The Centramatic 50 is designed to fit perfectly into a modern kitchen. It has the right dimensions (36″ high x 21″ deep) and an attractive variety of 3-tone colour schemes. It is fully insulated, and does not rely on chimney draught for efficient combustion (although it needs a chimney flue in which to exhaust).

The Centramatic 50 comes as a packaged unit. It requires no specialised installation techniques. And, of course, being totally enclosed, permanently installed and fed with oil from outside the house, it is always perfectly safe.

The Redfyre Centramatic 50 is suitable for heating systems requiring up to 50,000 B.T.U.'s per hour and costs £128 retail. There is also a larger version, the Redfyre Centramatic 80, which has an hourly output of 80,000 B.T.U's and costs £149 retail.

Full technical specifications of the Redfyre Centramatic oil-fired boilers are available. Please write to

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designed daylight *PLUS* insulation at low cost!

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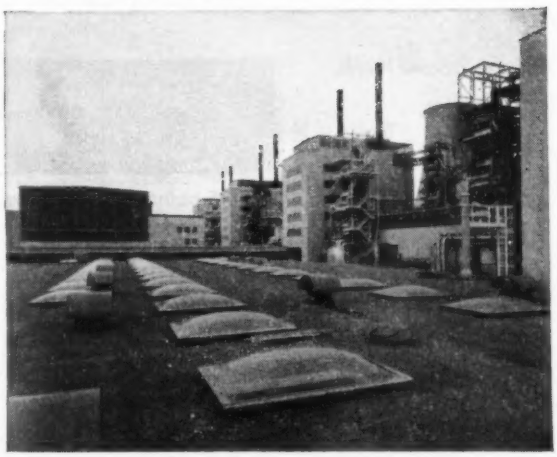
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MAXIMUM LIGHT TRANSMISSION
EASILY INSTALLED
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An insulated roof light is complementary to an insulated roof and CORDAR double skin 'Perspex' domes give a "U" value of .42 BTU/sq.Ft./HroF—the ideal answer to the problem of THERMAL EFFICIENCY. CORDAR provide maximum light transmission, eliminate condensation, and cut out maintenance with their exclusive featherweight design. A wide range of sizes, circular, square, rectangular.

Price Example:
3 ft. x 3 ft. dome
Single Skin—£9.0.0
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STANDS UP TO THIS...
Primer 'X' adheres and keys firmly when brushed on to a glass plate under running water.

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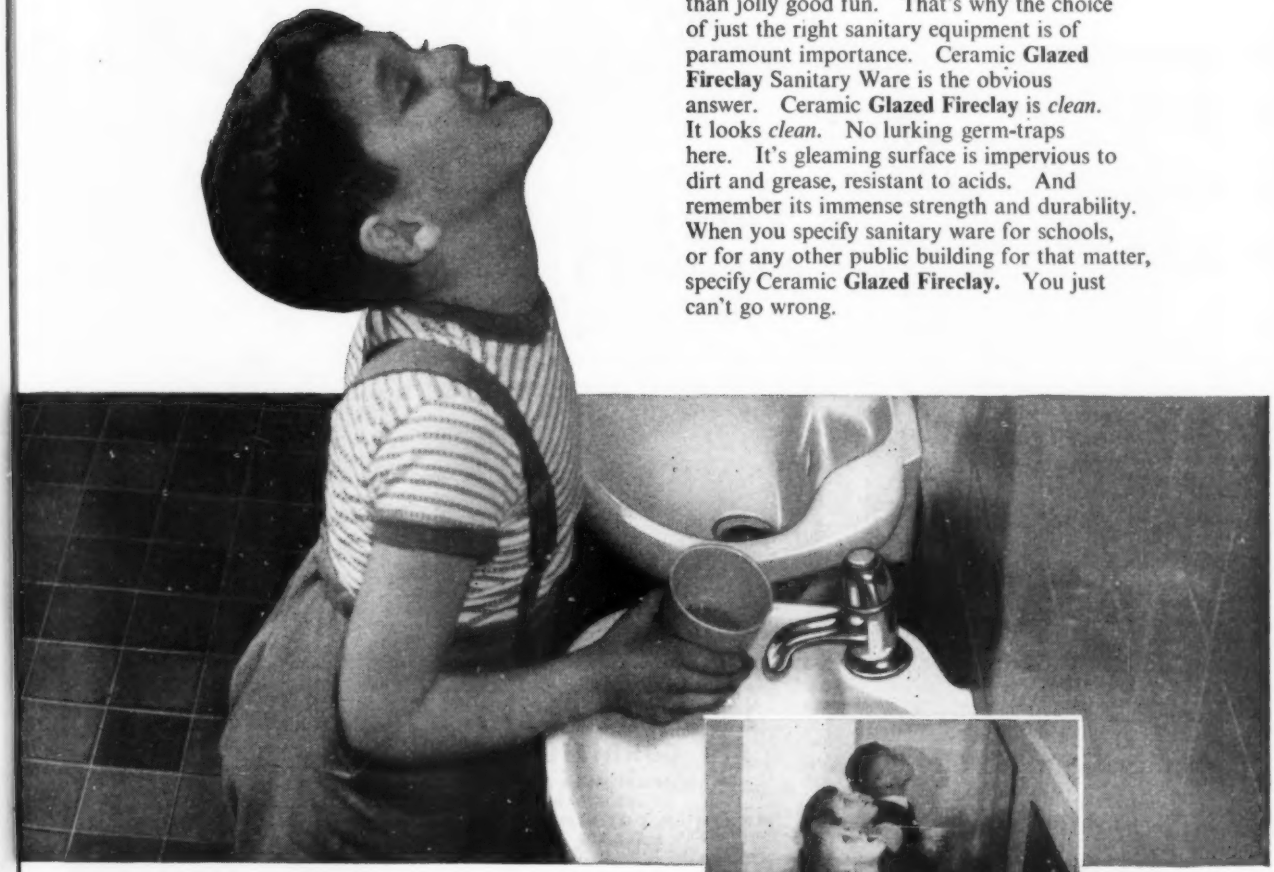
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'Tis said

Briggs minor doesn't give a tinker's cuss about hygiene. But to those of us who are responsible for the welfare of these supermen of tomorrow, hygiene is more, much more, than jolly good fun. That's why the choice of just the right sanitary equipment is of paramount importance. Ceramic **Glazed Fireclay** Sanitary Ware is the obvious answer. Ceramic **Glazed Fireclay** is *clean*. It looks *clean*. No lurking germ-traps here. It's gleaming surface is impervious to dirt and grease, resistant to acids. And remember its immense strength and durability. When you specify sanitary ware for schools, or for any other public building for that matter, specify Ceramic **Glazed Fireclay.** You just can't go wrong.





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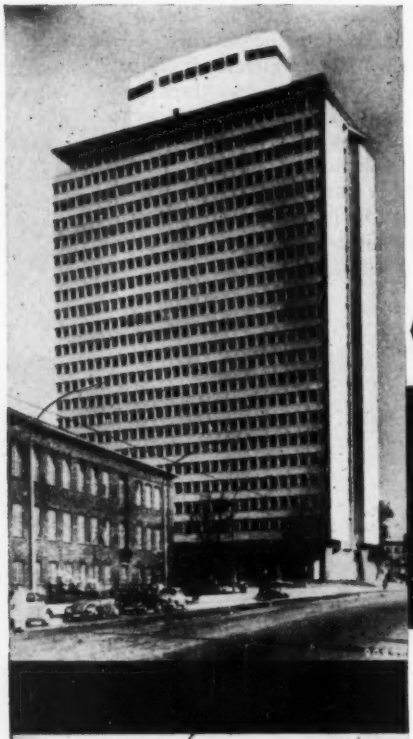
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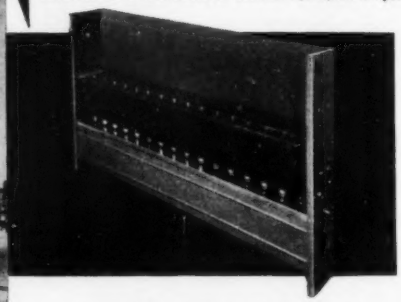
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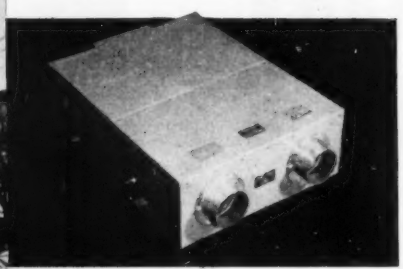
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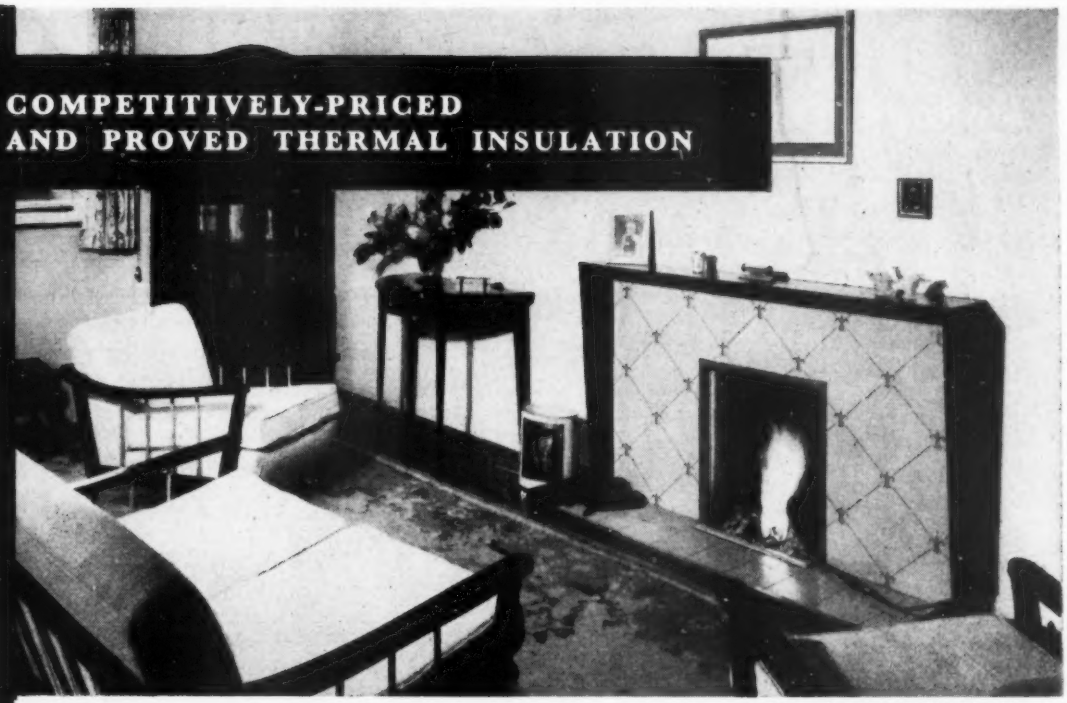
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COMPETITIVELY-PRICED AND PROVED THERMAL INSULATION



Photograph by courtesy of Ideal Home Magazine.

At "New Britwell", a house at Maidenhead. *Architect:* Michael H. H. Bayley, A.R.I.B.A.

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ROOF
Tiles on felt
2-3 inches slag wool.

CEILINGS
Plasterboard and skim coat.

EXTERNAL WALLS
Ground floor: 4½-in. brickwork, 2-in. cavity, 4-in. Thermalite, two-coat plaster.
First floor: Tyrolean rendering, 3-in. Thermalite, 2-in. cavity, 4-in. Thermalite, two-coat plaster.

PRACTICAL CONSIDERATION

The owner writes regarding the efficiency of the Thermal insulation.

"The only further comment that I can add after nearly three years' occupation is that the heating system was unnecessarily large, the bedroom radiators only being used occasionally and it is only during very cold spells that it has to be stoked more than every other day."

PRACTICAL CONFIRMATION

The thermal conductivity (k) of cellular concrete of 50 lbs. cu. ft. density according to the I.H.V.E. guide 1955 conditioned at 64° F/65%R.H.= 1.4 B.T.U.'s etc. This corresponds to the normal conditions in the average heated home during the winter months where a Thermalite inner leaf will have an equilibrium moisture content of approximately 4%

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THERMALITE
Loadbearing Insulating Building Blocks

Modernise with HARD COKE

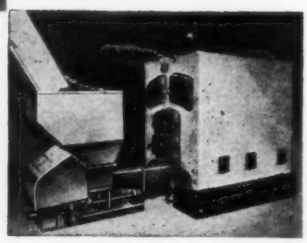
HARD COKE is widely used to heat flats, offices, hotels, schools etc. Coke-burning equipment can be as highly efficient, automatic and trouble-free as any other fuel system which probably costs FAR more to install and to run. Users prefer Hard Coke because it is made in plants designed essentially for producing cokes and these are technically suited and carefully graded for their specific purposes. Specially selected coals are used which are washed and crushed before carbonisation.

for LOW COST heating—automatic and trouble-free

THERE are available automatic coke boilers outstanding for their efficiency and economy and which operate unattended for long periods. Also chain-grate stokers, underfeed stokers and preburner units for converting boilers to automatic firing and higher efficiencies.

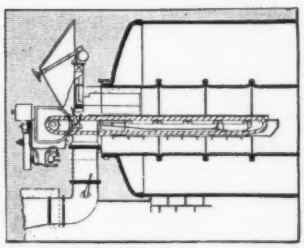
For the larger sectional boilers there are inexpensive, easily-applied conversion units which will raise the efficiency of the boiler, reduce the fuel consumption and provide accurate thermostatic control with time switches. The cost of the conversion has been saved in little more than a year from fuel savings, burning Hard Coke.

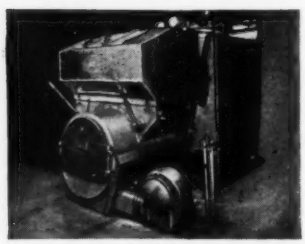
Further information will be supplied by the British Coking Industry Association representing the producers of Hard Coke, whose members include the leading Steel Companies, the National Coal Board and independent producers.



"BIGWOOD" Underfeed Stoker fitted to a sectional boiler.

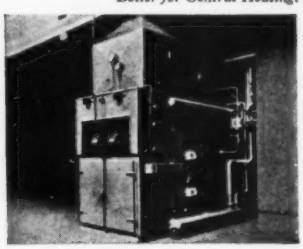
Cross-section of the "OLDBURY" Chain Grate Stoker fitted to a Lancashire boiler.

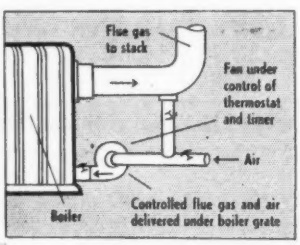




A "SUXE" pre-burner fitted to a sectional boiler for Central Heating.

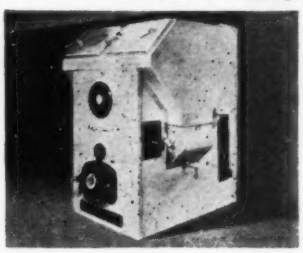
Redfyre "EMMA" coke-fired Boiler for Central Heating.





G.A.P. conversion unit fitted to sectional boiler for Central Heating.

"WATTS" coke-fired magazine boiler for Central Heating.



To conform with the CLEAN AIR ACT:

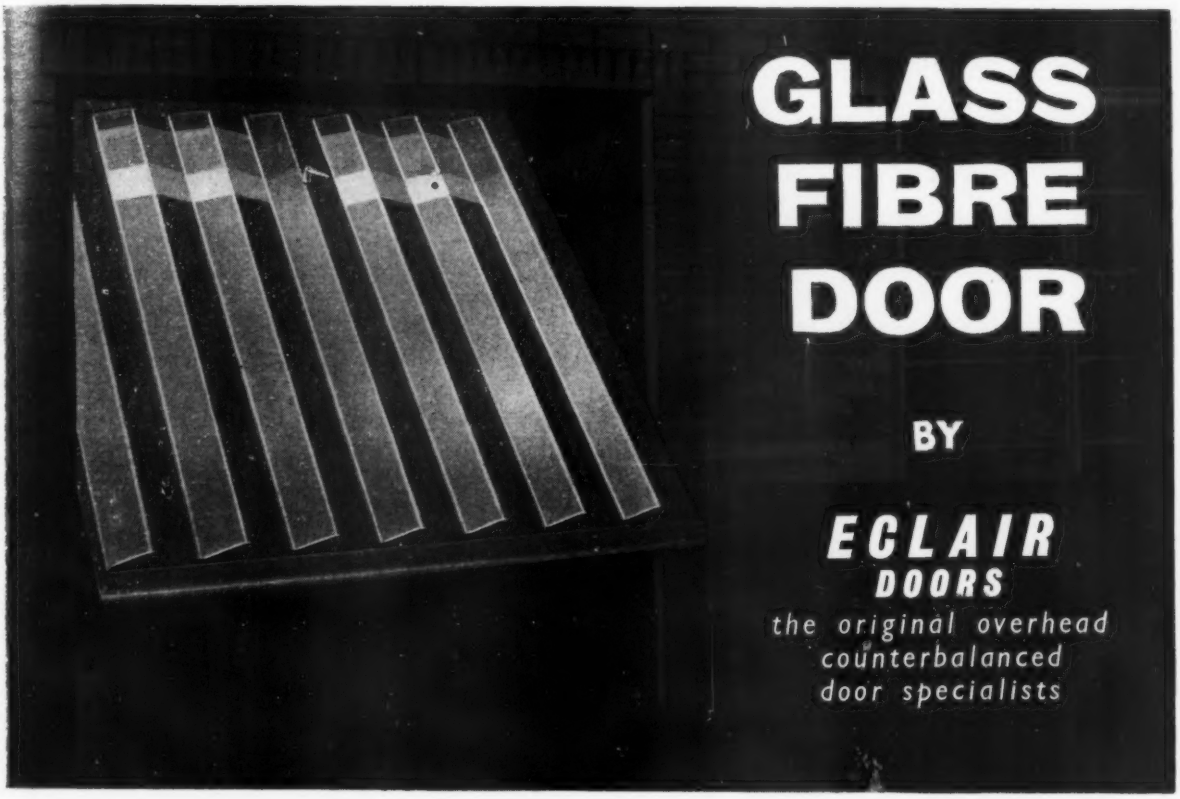
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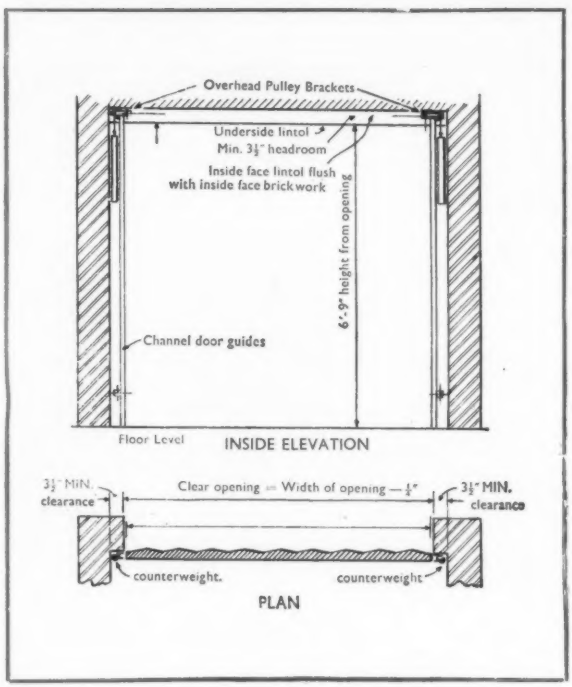
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Non-Standard: **Up to 15' 0" wide by 8' 0" high or equivalent areas.**

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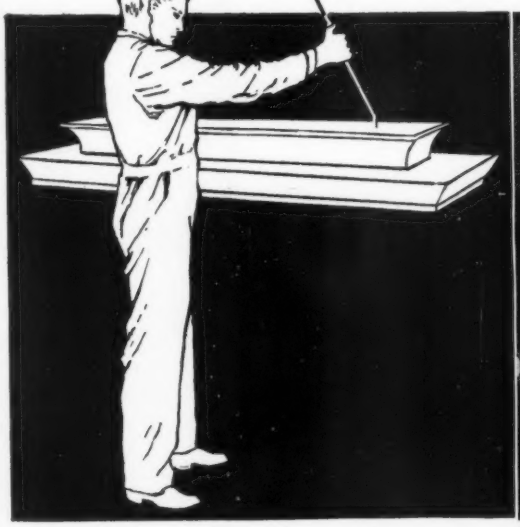
TO LIGHTING MAINTENANCE

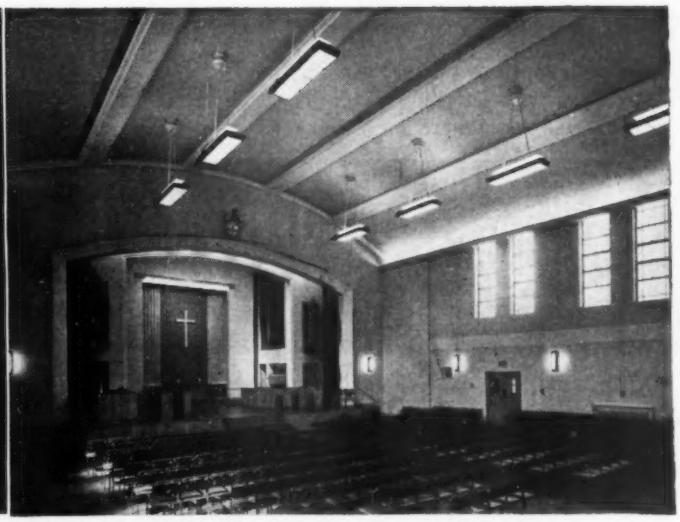
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L.E.F. RAISING & LOWERING GEAR





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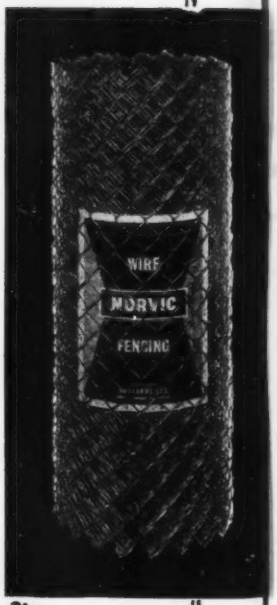
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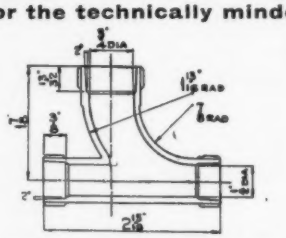
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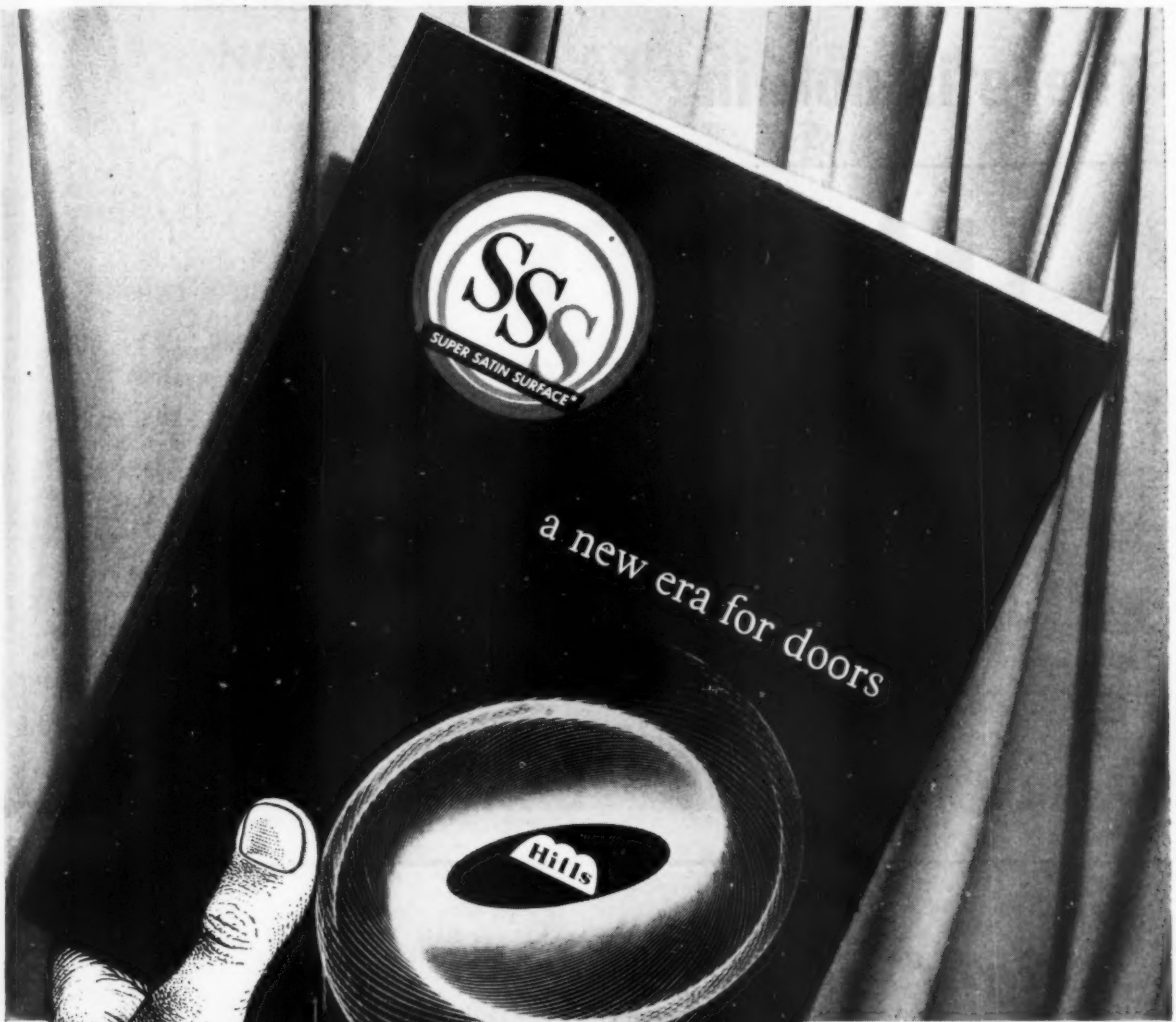
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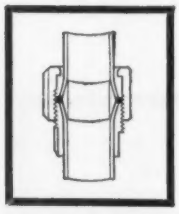
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(Respectful applause, quickly suppressed).



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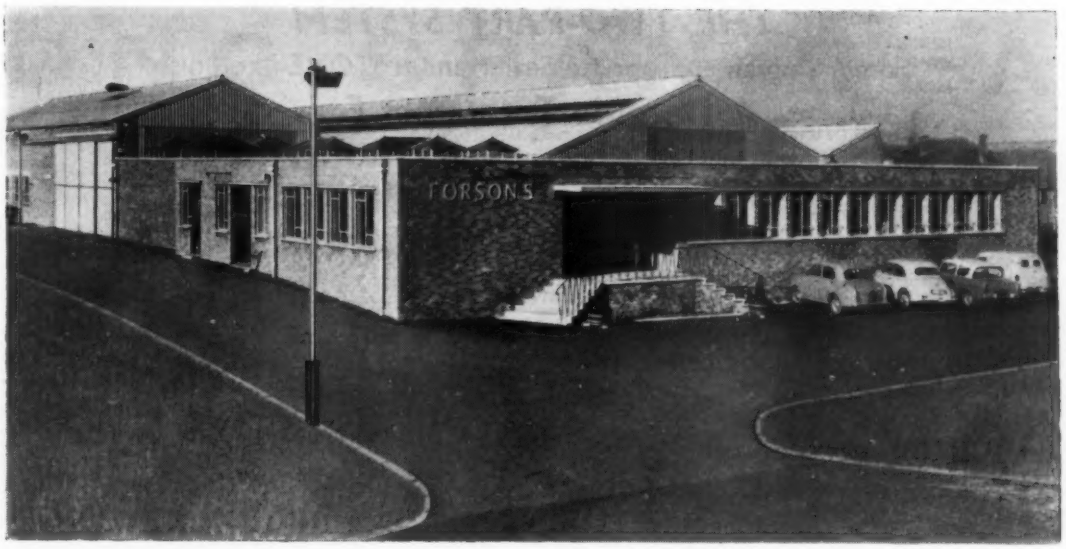


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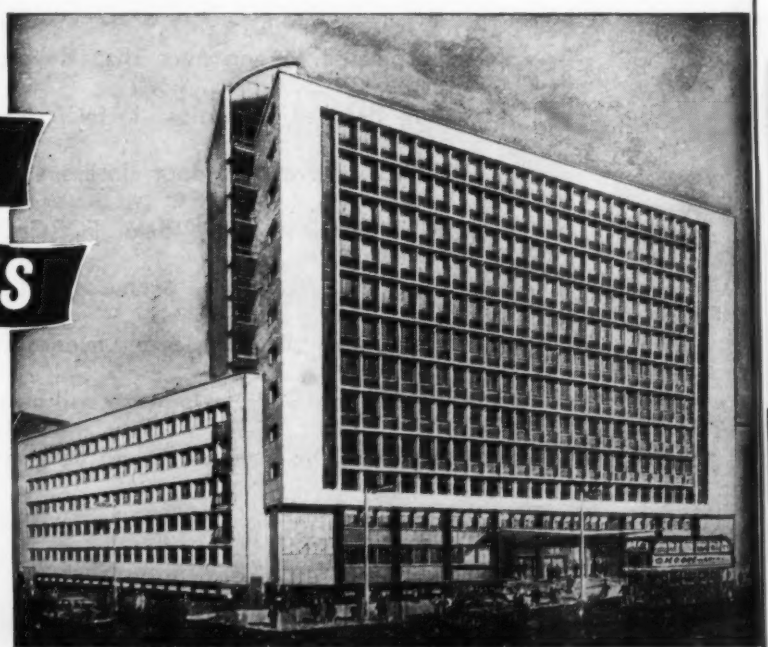
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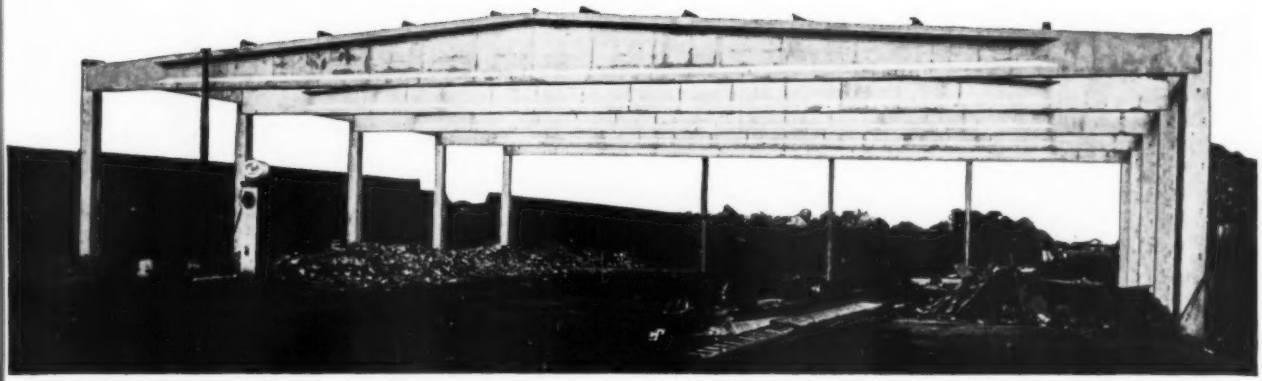
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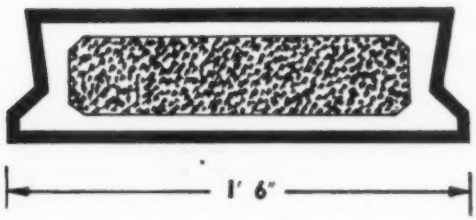
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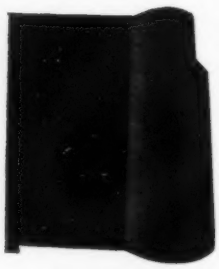
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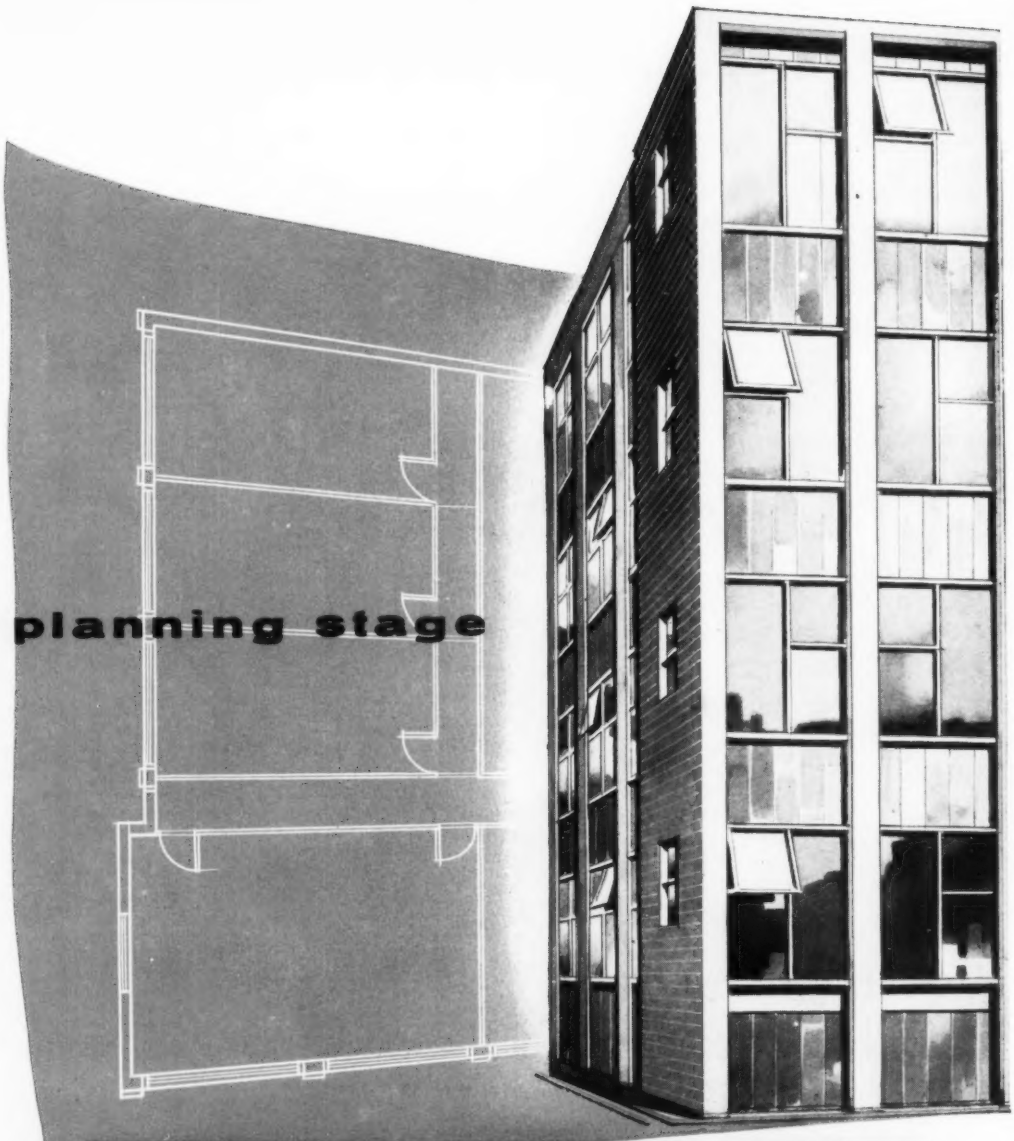
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NOT QUITE ARCHITECTURE

Cose Ain't What They Used T'Essere

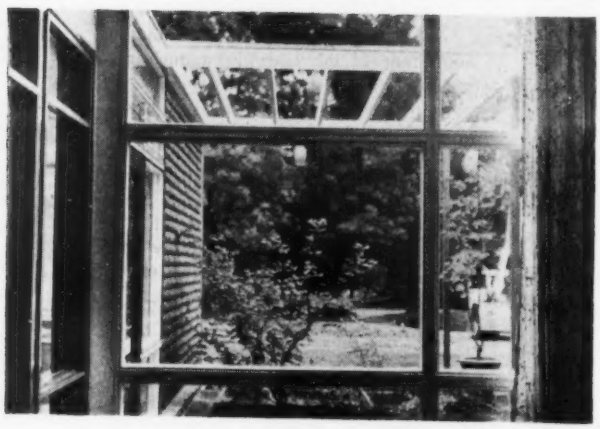
The things most Milanese in industrial design weren't at the Triennale this year. One because it is unique and immovable, the other because . . . well. Both are Olivetti, of course. Unique and immovable is Elea 9003, the first Olivetti computer, housed in the ground floor of the Olivetti building and pronounced locally *elettronicompiuta.*

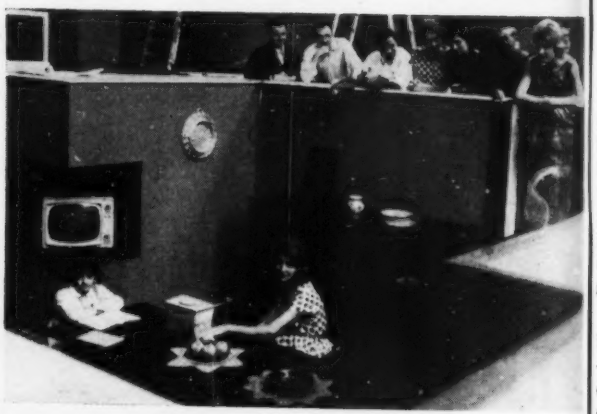
Ground floor? Too true, no mess of boxes and ducts chased in the screed, this is the front office computer with the back room performance that can be parked on the parquet or the terrazzo and not make more than a little polishing to do afterwards—and replacing the ring main, because this baby uses more than a domestic lot of juice.

*

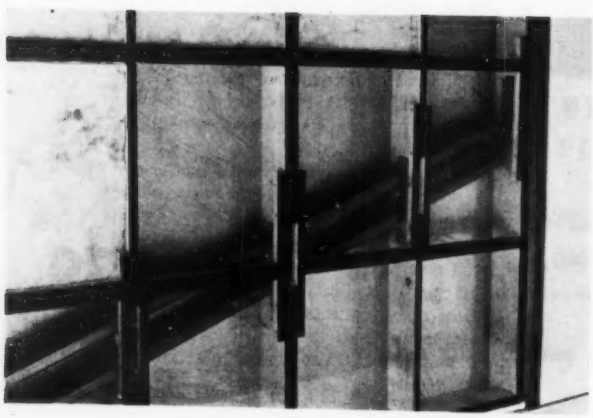
The electronics were designed by a team under the redoubtable Italo-Chinese genius Mario Tchou, but instead of being bundled into the local equivalent of Imhof boxes, the whole bag of tricks (including the non-Olivetti tackle, such as Ampex magnetic tapers) goes into a smart set of modular box-work designed by Ettore Sottsass, raised on legs so that all tops are on the same level, about chin-high to a passing Italian. This is not just for looks, though it looks great, in the new Commonmarket/Ivy League/Ulm-inspired manner. On to the level tops clip standard quadripods that carry standard modular ducting just above head-height, which is how the floor is kept clear. One problem Sottsass (or somebody) didn't resolve is how to get the cables down from the duct into the cabinets, and at present a gay collection of loops of plastic hose sprouts from the top of each quadripod and finds its way somehow into the works below.







Triennale—Hardware or Humanity?



One of the things that clearly impressed Italian opinion was the sheer quantity of equipment shown in the British exhibit at the Triennale—the CLASP/Notts County Council school (County Architect: Dan Lacey). The view across the hall, top, gives only a partial idea of the amount shown, and the two small pictures give an idea of the setting, the weather, and the structure (left). Unfortunately, it will not be possible to bring all this well-designed hardware to life by having the school actually put to use—the problems of assembling or exporting enough children and teachers have proved insuperable, so far—and this leaves the Italians with an advantage, in that, for the first few days of the show, professional models (subsidised by the Pinascente department store) inhabited the furnished rooms of the Italian section, small picture above, and did something to redeem and animate rooms of almost Victorian solemnity and gloom. This one, by Gregotti, Meneghotti and Stoppino, the founders of Neo-Liberty, is quite typical of the general trend of the Italian work shown.

However, this trouble has been licked on the second, transistorised model, now in the final stages of assembly chaos at the Olivetti Technical Centre at BorgoLombardo; there, Sottsass has *vertical* modular ducts too, coming down every so often between a pair of cabinets, while each cabinet is in three layers, the outer ones opening on hinges at the vertical duct end.

•

All very slick, dead-pan, space-age, with the control desk visuals (layout, keys, symbols) designed by the Information-squad at Ulm. Which raises two interesting points: (*a*) have we a computer which is as convenient to use and service as this one (if not, how are we going to stay in the export market?) and (*b*) whatever happened to Italian design, if Olivetti had to call in Ulm?

•

Refraining from "I told you so" with iron-willed self-denial, I simply draw your attention to the other Olivetti "thing," illustrated below. If you don't know what it is



or how to use it, you have about half the human race on your side. The other half know at once that it is a paper knife and you hold it like *that*, stupid! Nevertheless, the fact that fifty per cent. said "don't know" indicates that it is possible for a world-famous designer to dream up a simple tool that fails to do what Maldonado, in his AA lecture, identified as a characteristic of good simple tools—its shape should give information on its use.

•

Now, this isn't a second-year student fumble—Olivetti doesn't put its famous trade mark on that sort of thing—when I said "famous designer" I meant it. I meant Marcello Nizzoli, the man who made Olivetti the pace-setter of the Fifties. But this heavy brown plastic object isn't going to set any paces that I can follow. In Milan, opinion about it—simply as æsthetics—is divided between those who find it (incomprehensibly to me) an example of Neoliberty, and those who (equally incomprehensibly) find it the best-designed Italian product of the day. At any rate, it is supposed to be one of the things that lost Nizzoli the 1959 *Compasso d'Oro* award, and thus precipitated the much-discussed "crisis" in Italian design. It makes sense—if Nizzoli can now, in all seriousness, offer anything so dull, quaint and dubiously ergonomic, then he must really be getting past it; Olivetti is right to call in the Germans and *cose*, as they rarely say in the Galleria, *non sono come furono*.

REYNER BANHAM

The Editors

1½ IN. OR 4 IN.?

ON page 184 of this issue we publish an account of an experiment in Modular Co-ordination carried out by the Building Research Station at Hatfield. This is probably the most convincing demonstration that we have seen so far that the co-ordination of the dimensions of standard building components can be made to "work." In its essence this demonstration represents a tidying up of traditional building practice: an insistence that craftsmen should build to dimensions and not leave it to following trades to bodge up their inaccuracies; and a demonstration that, if materials producers were to make a few quite minor changes in production, they could show some modest savings in waste and in the time spent cutting.

This tightening-up of traditional technique is welcome. At the same time we must not lose sight of the fact that the reason why Modular co-ordination became important was the growing industrialisation of building. Soon after the last war, the process of transferring work from site to factory received a sharp check and traditional craft building re-established itself in most sectors. Experience in every other field of life suggests that this check was probably transitory and that before long industrialisation will be resumed. If this proves so, the BRS experiment, although useful now, may not be of lasting significance. Although BRS have an ingenious method of showing how the 1½ in. increments which they propose are a legitimate extension of 4 in./10 cm. Modular theory, the crux of the matter seems to be whether these 1½ in. increments are valid on anthropometric grounds or whether they have been adopted simply to accommodate the 9 in. by 4½ in. by 3 in. brick. If the latter, it may prove unwise to attempt to form a dimensional theory for industrialised building on the assumption that the 9-in. brick will be with us for ever.

Meanwhile, the BRS experiment is not complete: they have still to build some bungalows in precast concrete units and a four-storey block of flats using a framed structure. It is to be hoped that they will persevere with these as, if they do not, they will open themselves to the jibe that they have only carried out the part of their programme which seemed likely to favour their convictions.

THE PLANNING SPECULATOR

The sketch plan for redevelopment in Oxford prepared by Tom Hancock and others for Townmaker Ltd. shows imaginative ways of rebuilding the St. Ebbes area, the main shopping and commercial zone west of Carfax and of solving the traffic problem. We publish it at length in the JOURNAL (see pages 170-177) because of its quality and because it demonstrates a new sense of responsibility on the part of the developer which should be recognised and encouraged.

It is a rough plan, not worked out in detail, but it makes the point that the redevelopment of the parts of a city must always be considered in relationship to the whole, and that the vitals of a city are its communication system. The Oxford City Council has ignored this proposal (only three Councillors attended the opening of the exhibition of the Townmaker design) and has sent three road schemes to the Minister of Housing and Local Government and asked him to hold an inquiry and make a choice.

It does not seem wise to make planning decisions for Oxford which are based on traffic considerations alone. The lesson that Townmaker teaches (whether its own proposals are valid or not) is that Oxford needs an overall plan for its redevelopment that embraces buildings as well as roads. No one aspect of a planning problem should be solved in isolation.



CEYLON AN ALLY

I ought to have said something before about the good news that the Ceylon Institute of Architects had been admitted to the community of the RIBA's Allied Societies. Congratulations to both bodies on something the CIA's retiring president, Herbert Gonsal, has been trying to achieve since 1932, when he began discussions with Sir Ian McAllister in London. This is confirmation that the RIBA is giving special attention to such important, isolated, overseas associations.

The new brooms at Portland Place will shortly, if they haven't already, acquire a great deal of information on how to increase the efficiency, and speed the influence, of the profession. This could form a functional basis for long-lived ties with newer architectural societies in the Commonwealth.

HELP THE PRESERVATIONISTS

I've been handed a great bundle of correspondence from various organised and unorganised sources protesting about official schemes to create an inner ring road in Chester, a road-widening scheme which involves the demolition of a number of pleasant Georgian houses—or so they are described. Unfortunately no photographs or explanatory plans are produced to back the protest, so it is difficult to know how much support it ought to have. The correspondence includes two sensible suggestions: one that the centre of Chester should not be altered until the ring road is completed, and the other that a one-way street system should first be tried. Bearing in mind that the more space you allow for cars in a city the more cars you will get, these proposals seem reasonable. But how much more effective all protests would be if they were backed by vivid illustration. Preservation societies are badly in need of more architect members to help with this sort of thing.

CHEAP AND HONEST

The architect's code says "no discounts or commissions," but it is referring, presumably, to payment in return for the ordering of a particular firm's materials on behalf of the client. Obviously the architect must not be bribed into ordering certain items for other people, but I'm told on what is known as the highest authority that there is no reason why an architect shouldn't buy goods for himself and get the maximum discount he can squeeze from the supplier. He may also get discount for his clients if it is offered—a point which seems to have escaped the notice of some nervous architects. So there was nothing wrong about the recent advertisement in the JOURNAL in which a firm called Better Buying Service offered goods at a discount of from 10 per cent to 2[illegible] per cent. The only people who have cause to complain are the shopkeepers who mark up the prices of goods by 30, 40 or 50 per cent or more and don't relish any competition spoiling their easy living.



One of the few visitors on the day when Townmaker's plan for Oxford was exhibited for the benefit of Oxford councillors. The simple exhibition was designed by Derek Birdsall. The plan for Oxford is fully illustrated on pages 170-177 of this issue.

SIGN OF THE TIMES

The RIBA standard architect's sign

board is now so familiar on buildings under construction that I noticed nothing odd when I first glanced at one the other day. In fact it wasn't one. The RIBA crest was missing and in place of the word "architect" were the words "building surveyors." The name at the bottom was that of a well-known property agent. The proportion, layout, lettering and colour was so similar to the architect's version that the crib seemed too obvious to be unintentional. And just down the street was another board with a different name on it. The architect can be flattered that estate agents, if no one else, envy his status enough to imitate him.

NEW NASH

Terence Davis's new book, *The Architecture of John Nash* (Studio, 50s.), is a sumptuous souvenir of summer excursions to stately homes and urban terraces. It's not really a guide; nor is it a substitute for the book by Sir John Summerson, who provides a scholarly foreword. The information is scattered in the currently-fashionable manner—plans in one place, text somewhere else and photographs somewhere else again—and even the photographic coverage isn't thorough. But the photographs include many of little-known and unpublished works, like Longner or Sandridge, or things that have disappeared, like old Regent Street. And many of the pictures are absolutely superb—the sort that bring back the echoes in the stable-courts or the smell of potpourri in the hall.

*

While we are in the Nash country, let me recommend the new and revised edition of *Royal Pavilion* (Leonard Hill, 50s.) Clifford Musgrave's standard work on everybody's favourite seaside extravaganza.

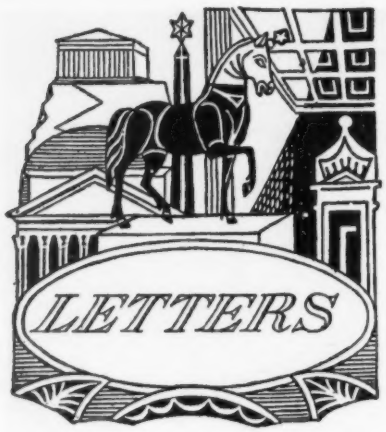
QUIET AND QUICK

Business—and sometimes pleasure—occasionally sees me airborne to the Continent. As a result of a recent jaunt I can add to last week's *Not Quite Architecture* the information that the Comet is not the only jet-liner that goes straight up and arrives a bit late. The Caravelle does it too. It's quite a sporting aeroplane of the rush-down-the-runway-and-leap-into-the-air type. Its aft-mounted jets certainly make it quiet inside (though I don't know about that "quieter than a Cadillac" bit) until you open the door of the toilet, which is just inboard of the machinery and quite — no, *very* — noisy. The interior isn't really as good as the performance. The windows are low, with rather tatty curtains, and a long band of sickly tachiste-patterned plastic, presumably covering ducts, runs the length of the cabin between the curtain tracks and the luggage racks. These are partially unused because you are not allowed to put luggage on them.

ASTRAGAL



Longner Hall, Shropshire, designed by John Nash and built in 1806, *the only surviving example of Nash's work in a Tudor style. An illustration from Terence Davis's* The architecture of John Nash *reviewed on this page by* ASTRAGAL.



Noel Moffett, A.R.I.B.A.

B. R. Davis, A.R.I.B.A.

A. G. Sheppard Fidler, F.R.I.B.A.

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Urban Renewal: Nine Basic Points

SIR: The recent conference on REBUILDING CITY CENTRES, organised by The Civic Trust, someone—I think it was a Councillor from a northern city—said that the real problem of central city areas was not an architectural or a planning one—" this could safely be left to our architects and planners " —but rather a financial and administrative one.

I came away wondering if such confidence in architects and planners is deserved and how much agreement there is, in fact, among us about urban renewal. How many architects, I am wondering, would agree with the following nine basic factors, which, for me at least, would govern any attempt made to redevelop a central city area?

1. City centres are for PEOPLE; the aim of any redevelopment must be to enable people to live as well as to work, to play and to move about more efficiently and more pleasantly than they have been able to do in the past.

2. History has built our city centres; and so all new development must be sensitively and imaginatively related to our historical heritage, while at the same time being designed in an uncompromisingly modern manner.

3. Today many city centres should be thought of not as the centre of a finite urban area but rather as the most urbanised part of a large spreading conurbation.

4. We must accept the fact that a new SCALE is inevitable in our city centres—with tall buildings, wide streets and a huge volume of traffic, both vehicular and pedestrian.

5. Complete VERTICAL separation of vehicles and pedestrians is necessary. Today there are too many vehicles and too many people in our cities for any other solution, such as horizontal separation, to be considered.

6. No fast motor road should be permitted in city centres. American examples, such as those in Los Angeles, Detroit and Boston, have shown us conclusively how such roads destroy the city and make civilised urban life in it impossible.

7. The street pattern should be based on FUTURE needs, not on present ones; no new streets ought to be built until a proper traffic survey is carried out. Birmingham ring road and the South Wales motorway are both already out of date, before they are even finished.

8. Positive, constructive planning is better than negative, restrictive planning: it is not enough to tell Jack Cotton that he can't have his Monico building; he must be shown clearly and definitely what he can have. It is not enough to tell the car owner that he can't bring his car in to central London or central Birmingham; if he can't, then public transport must be better organised.

9. City planning is a three-dimensional art; it is not a collection of colleges, charts, maps, diagrams and statistics. These things are indeed the very necessary foundation and base on which the plan is built and from which it evolves. But they are nothing more than this. The plan itself is a living, evolving, vibrating, constantly changing thing, capable of respecting the past, coping with the present and at the same time incorporating the unforeseen and unforeseeable future needs of human beings.

NOEL MOFFETT

London

Light Variety

SIR: I am surprised that Astragal, in describing the reopened Flamsteed House, does not mention the curious choice of light fittings. Some rooms have pretty little brass wall brackets with imitation candle lamps: the main hall has excellent modern fittings; and the top of the staircase en suite with this hall is lit by a three-armed chromium-plated shocker, reminiscent of the taste of suburban electrical showrooms.

What conflict of counsel lieth here concealed?

B. R. DAVIS

London

More Detailed Details

SIR: Mr. Brown's admirable letter in your issue of July 14, 1960, goes to the heart of the matter.

We know what we want but are less clear as to how to get it without risk.

The younger generation of architects and students regards traditional " commonsense " detailing with distrust.

It sees no reason why it should not go the same way as a similar and wasteful " rule of thumb " approach to structures (calculating timber floor joists on the basis of 1/24 span plus 2 in. and so on). The new approach to structures is both scientific and experimental and the new detailing, at best, is the same.

The present state of knowledge and the fact that we are all using many relatively new materials with traditional ones puts a premium on shared experience.

By annotating your published details in the way Mr. Brown suggests, you would not only be giving us a very valuable insight into the precautions used by leading architects to combat age-old problems such as expansion, shrinkage, warping, allergies and moisture penetration in special instances, but would also be enabling us to make a speedier and more effective contribution towards building up a new standard of good practice.

I very much hope that his suggestion will be adopted.

A. G. SHEPPARD FIDLER

Birmingham

The Technical Editor replies: We agree with Mr. Brown and with Mr. Sheppard Fidler and for this reason we aim at the ideal they lay down. Unfortunately it is not always attainable since interesting detailing is usually in some measure experimental. The designers of detail feel that they have good grounds for hoping for the best, but that is as much as they would say. Our own feeling is that, if we were to limit publication to the gilt edged solution, we would deprive Working Details of some of their interest. A solution might be to continue the series as at present (i.e., with an implied " caveat ") and to return and report on examples after five years' wear.

Point-Block Garages

SIR: For the past year, as an architect-planner, working in a local authority, I have been connected with a high-density housing scheme covering an area of approximately 10 acres. While designing it I went into the problem of garages generally and my findings were rather revealing. I found that for a net density of 170 p/a (and above) the site area per dwelling works out to 1,000 sq. ft./dwelling. Assuming the provision of one garage per dwelling, the garages seem to account for up to 50 per cent of the above figure, including turning space and ancillary access roads, depending on the particular site conditions. At such densities a large percentage of dwellings are provided in multi-storey blocks of 11 or more storeys. In such circumstances, the choice between multi-storey dwellings and multi-storey garages seemed to be quite competitive. Consequently, I went into the pros and cons of putting garages in tiers rather than people. This was, however, based on the assumption that in Great Britain living in flats is by necessity, and not by preference. The inter-

pretation of this economic necessity (in terms of dearth of land) into tall blocks was certainly welcome, but only in the days of lower garaging provision and net residential densities. Admittedly the advantages of tall flats are also aesthetic in giving a variety of form to the general development. However, it is hard to admit that residential usage is a prerequisite of this particular factor. After going into this approach further I have arrived at the following conclusions.

1. Dwellings can be designed to 100 ft. walking distances, but garages need access roads right up to their doorstep.
2. Of all the other elements using roads, like refuse collection, postmen, removal men and fire brigade, only the last mentioned actually needs access right alongside the dwelling. However, with the use of patent sets and removable bollards this should not prove to be a major obstacle.
3. The extra cost of the lifts and the heavier structure (if calculated on at least neighbourhood basis) would, I presume, be more than offset by the more economic use of the land for only walk-up type dwellings, *e.g.* maximum 3-storey flats, or 4-storey maisonettes.
4. In the mechanical multi-storey garage itself, the cost of car lifts would be offset by the reduction in passenger lifts.
5. The cost of external walls, owing to the absence of windows should be reduced as well.
6. The construction would be greatly simplified owing to the elimination of the internal vapour source.
7. If attendant-operated the noise hazard would be reduced. Even otherwise the sound insulation is simplified by lower perimeter-area ratio of containing walls, as compared to the long rows of garages.
8. The lay-out and detail planning of tall blocks would be simplified by reduced restrictions in terms of orientation, means of escape, overlooking, etc.
9. Standardisation and modular planning would be facilitated.
10. Tarmac area would be reduced.

In a hypothetical case a centralised point block of mechanically fed garages to serve dwellings within 100 ft. walking distance would have a catchment area of approximately three acres, containing 120-150 cars. Evidently this would be about the maximum limit.

The only objection which appears tenable is the increased difficulty in successfully treating masses with larger solid area, but I am sure it would be a welcome challenge to our profession. I for one would think that such blocks once divested of their functionally habitable character would be much more exciting to tackle as sculptural objects. I must stress again, however, that to exploit this approach to the fullest it would have to be used on a comprehensive scale.

In conclusion I would like to request any reader who could possibly give any information of existing examples, either here or oversea, or make any other relevant contribution to correspond with me.

R. V. MOHÉ

London



GLASGOW

Limited University Competition

A competition for the design of a new Hall of Residence for Glasgow University, limited to nine firms of architects, was won by Grenfell Baines and Hargreaves. The assessor was Professor Robert H. Matthew. The site is amidst parkland at the Garscube Estate. The design will be illustrated in a future issue.

POST OFFICES

Private architect pace-setters

Sir Hugh Casson and Misha Black have had built the first of three designs for modernised London Post Office interiors. It is in South Molton Street. The others are in Knightsbridge and near Ludgate Circus. F. J. M. Ormrod, the Liverpool architect, with W. Stevenson, principal of the Liverpool College of Art are similarly designing post offices in Lancaster, Leeds and Manchester. The performance of all six post offices will be studied, and on the results will be based a £300,000 annual programme of modernising the country's 2,000 post offices at a rate of 100 to 150 a year. Illustrations of the Casson/Black design will be published shortly.

EDINBURGH

University Course in Civic Design

A new course in Civic Design will start in Edinburgh University at the beginning of the forthcoming 1960-61 session. Although the course is designed to meet all the requirements of the Town Planning Institute, it will concentrate on the urgent problems of Urban Renewal with particular emphasis on the techniques of comprehensive development. For this purpose careful attention is being given to the integration of the various specialist studies which have to be provided in order that a complete understanding of the total planning procedure may be achieved.

Lectures on the Theory and Practice of Civic Design will be given by Professor R. H. Matthew, FRIBA, Percy Johnson-Marshall, ARIBA, AMTPI and F. R. Stevenson, ARIBA, FRIAS, MTPI of the Department, who combine extensive practical experience with up-to-date personal knowledge of recent urban development not only in Europe but in North and South America and Asia as well. A short lecture course on the evolution of small settlements will be given in the History series by Dr. P. J. Nuttgens, M.A., ARIBA, who has made a special study of this subject. The students will also have the benefit of the experience of the Department's Housing Research Unit, while visiting lecturers on this subject will include A. G. Ling, City Architect and Planning Officer, Coventry, and L. H. Wilson, Chief Architect and Planning Officer of Cumbernauld New Town.

Other lectures and visiting lecturers will be: urban development strategy: R. Grieve, chief technical planner, Department of Health for Scotland, and L. W. Lane, senior planning officer of the LCC. Landscape: Frank Clark and Peter Shepherd. Communications: C. D. Buchanan.

As one year of the course will be full-time, the opportunity will be taken of closely relating the lectures to the studio work, and to the programme of planning research, and also of conducting a series of technical brains trusts, where several specialists will be available simultaneously.

Applications for admission should be made to the Professor of Architecture, the University of Edinburgh, 16 George Square, Edinburgh 8.

PLANNING

Park Planning unbalanced

The main body of this well-written book* is a description of the ten areas now designated as National Parks. Each chapter is written by an enthusiast who knows his region thoroughly, and all are interesting. As one would expect, there is wit and insight in Clough Williams Ellis's essay on Snowdonia, and Arthur Raisbrick is particularly illuminating on the historic background of the Yorkshire Dales. But there is perhaps a vein of too easy optimism throughout. The reference to Dale and Angle as "two attractive fishing villages" already ring hollow.

The problems of the parks are dealt with more thoroughly in the concluding chapters, but one still feels the need of a sequel which would deal specifically with the positive and creative means of absorbing the new uses, including a surfeit of visitors and of regenerating black spots at present excluded from the designated areas.

The account of the long fight for the establishment of National Parks should make us realise not only our debt to the pioneers, but how we ourselves should be carrying on

* *British National Parks.* Country Life, 25s.

the struggle for the same ideals. Every encroachment on a National Park should have as a corollary the designation of a new area or the extension of a park boundary. A policy which on one hand approves the Milford Haven and Trawsfynydd developments, and on the other turns down the Thames side walk, is seriously out of balance.

In a useful summary of the powers and responsibilities of the National Parks Commission, the point is stressed that they are concerned with matters affecting landscape throughout the country. This role of watchdog to the nation's countryside is not sufficiently known and their influence in this direction might well be strengthened to supplement the over-strained resources of the Royal Fine Arts Commission.

SYLVIA CROWE

ROADS

More About Motropolis

"Motropolis," readers will remember, was the title of the stimulating special issue of the JOURNAL of October 1, dealing with the vast problem of how and to what extent we should adapt our big cities to the motor vehicle.

There has been quite a spate of papers dealing with this problem during the past month or so. Two of them were by architects David Gregory Jones, A.R.I.B.A., who is editor of the ABT's journal *Keystone*; and Patrick Horsbrugh, A.R.I.B.A., of High Paddington fame, who has recently been working in Canada and two by civil engineers Fred Burggraf, Director of the Highway Research Board in Washington; and E. H. Doubleday, County Planning Officer of Hertfordshire, who visited the USA last year, and described what he saw there first in three articles in *The Sunday Times*, and then in a paper to the TPI). It is interesting to compare what these four gentlemen had to say about urban motorways and their impact on the urban environment (or "envirium," as Mr. Horsbrugh prefers to call it). Do we want to see the Los Angelisation of London; and, if not, how can we avoid it?

Blight or boon?

Mr. Doubleday takes the view that "we must come to terms with the car" (he does not specify what the terms should be) and "we must face the fact that cars will still continue to come into our cities and plan accordingly." He also believes that "the freeways to be found in California . . . are the road of the future to be provided for." However, he admitted that "some American towns seemed . . . to have successfully solved their traffic problems by ingenious physical solutions, but in doing so had almost ceased to be towns for living at all"; and he emphasised "the fundamental need to combine freeway planning with overall community land use."

In particular, he spoke of the detrimental effect of a certain double-deck elevated expressway in Boston on the adjoining property. "There seemed," he wrote in *The Sunday Times*, "to have been a lack of a planner's guidance on land economics and redevelopment possibilities before this Boston expressway was constructed." Mr. Burggraf, on the other hand, pointed to this same Boston freeway as a striking example of how such roads gave a boost to land values. A multi-million dollar construction and redevelopment programme is, he tells us, in progress, spurred by freeway construction; and "the new valuations will be more than double those taken off the tax rolls by right-of-way acquisition."

All of which shows that there is no unanimity as to the lessons to be learned from American experience with urban motorways; and no doubt the argument about the part such roads should play in our "city regions" will continue for many a year.

CRSC unEnglish?

Incidentally, I do not share Mr. Doubleday's doubts as to whether the "CRSC" (Controlled Regional Shopping Centre) will ever take on in this country. Given a network of motorways in the outer areas of our conurbations, I see no reason why it shouldn't. A centre of this type is not intended for weekly shopping for provisions, etc., but rather for occasional shopping for clothes, consumer durables, etc.—the kind of shopping now done in city centres. We may eventually see half a dozen such centres around London, and perhaps others in Sussex and East Kent.

Burggraf is an out-and-out enthusiast for urban motorways. He produced figures to show how they cut travel times, reduce accidents and fuel costs, relieve city streets and enhance urban land values. In his view the only thing wrong with Los Angeles is that it has not yet got nearly enough motorways—in fact it has, so far, only 15 per cent. of the planned motorway system. "Good roads everywhere have demonstrated that they stimulate travel," he said, "and freeways are no exception. . . . Their occasional or even frequent overloading merely shows the need for more freeway mileage."

Public transport

On the other hand, he quoted from the Chicago Area Transportation Study, which states that the objective of Chicago's transportation plan is "to maximise the ease of travel within the urban region"—which is something different from maximising facilities for the movement of private cars. He also referred to the main findings of the Washington transportation study that new underground railways would be needed in that city as well as urban motorways. These underground lines would cost about £900,000,000 to build. He agreed that the money for them had not yet been found (it probably never will be).

At the ABT meeting on Motropolis, the improvement of the public transport system was urged by Mr. Gregory Jones, who suggested there might be a Campaign Council for Public Transport. Mr. Churchill, of the LTE, said that 91 per cent. of Central London's workers enter the area by train and bus; and that the buses, which form only five per cent. of the road vehicles entering Central London, bring in two-thirds of the people who enter the area by road. He pointed out that no data yet exist about the value of urban motorways in London; and he did not think London Transport would want to run bus services on any motorways that might be built.

A splendid transformation?

Mr. Gregory Jones takes the view (as he put it in his article on "Motorways and conurbations" in *Keystone*) "the motorway is an inescapable new element in the cityscape"; and that "motorways, if treated boldly, with generous related development, and if keyed to an imaginative overall picture of urban renewal, could lead to a splendid transformation of our cities."

This whole-hearted acceptance of the need for urban motorways is in marked contrast with Frederick Gibberd's paper on "The impact of motorways on the urban environment" (presented in March to a joint meeting of the ICE and the RIBA), which stated bluntly that "when the motorway enters the built-up area the architect loses his enthusiasm," and went on to declare that "the term 'urban motorway' is a contradiction in terms"! This contrast suggests that to talk of "the architect's view of urban motorways" is very misleading, since there are two diametrically opposed views current among architects as to whether urban motorways ought to be built at all in our cities.

Is the city an anachronism?

One architect who takes an extreme view about motor and other forms of modern transport, and the revolutionary effects they ought to be having on our thinking about urban development, is Mr. Patrick Horsbrugh. Fresh from the wide open spaces of Canada, he told the Railway Conversion League that "I consider all England now to be urban"; that "the time-distance-effort relationships have made the concept of a city as a huge concentration of activities surrounding some historically conscious centre somewhat archaic"; and that "with imagination . . . mechanical transport can become the means of establishing a workable and emotionally acceptable alternative to the overstretched 'city' that still avoids the excessive wilderness of suburbia."

However, he seems to have little hope that the necessary imagination will be supplied by architects, or by planners trained mainly in architecture, since their concern will always, he fears, be with static values rather than with the dynamic element of transport which will inevitably shape our future "envirium," rough-hew it how we may. He writes:

"The planning schools both here and abroad have, for the most part, grown from established schools of architecture, and as such are regarded as extensions of a specialised training—instead of the subject of planning being regarded in its own right as absolutely fundamental, with architecture taking its place as a detail of the scene, whether it be urban, rural or desert.

"In suggesting a more balanced programme

of study. I am exploring the possibility of five to seven year graduate courses arising from a Primary training in Landscape Comprehension, thereafter breaking into four complementary Secondary Courses of Regional Planning, Urban Planning, Architecture and Transportation. . . . The anatomy of transportation now requires to be studied before the environment can be re-composed, even as structure must be studied before architecture can be achieved."

Mr. Horsbrugh would, it seems, be quite happy to see such a planning school as he envisages placed under the direction not of an architect-planner but of a transportation specialist. But he was unable to name any English specialist who would be qualified to train planners.

Pending the training of this new race of master-planners, Mr. Horsbrugh suggests that planners have "a great measure of hidden responsibility to seek out and encourage those engineers who are exploring structural methods and means of movement," since "their understanding and encouragement of inventions can be of enormous importance in hastening the general acceptance of new forms of transport, and the effectiveness of their use." At present, he says, "there exists a great void of ignorance between those charged with re-developments and with individual design, the Planner, and the creator of vehicles and systems of movement, the Engineer." With that conclusion I fully agree.

NIGEL SEYMER

COST AND MANAGEMENT

St. Andrews Conference: What Next?

A correspondent writes: The Cost Control and Management Appreciation Conference held at St. Andrews at the end of June was the last of the series organised by the RIBA Cost Research Committee.

Of this conference it was said, with some truth where detail was concerned, that too little account had been taken of Scottish procedures. So far as the principles and general view of management were concerned, however, it was generally considered to have been useful in at least provoking thought. In any case it was judged a success. The papers and discussions followed similar lines to previous conferences. Anyone who has not had a copy of the papers from these conferences should certainly try to get a set from the RIBA. Such useful material is not yet published elsewhere.

Now that the series has finished, the question must be asked, has it all been worth while, and if so where do we go from here?

There can be no doubt that there are many years of hard work ahead if management is to be brought to the standards of more progressive industries. Education is a slow business; architects have to educate themselves in management, and progress will be slower than usual. Why? Clearly these conferences have not made all of the profession good managers, and still costs go wrong too often. But some good ideas have come to light, many architects have started to think about management, and few can be unaware that terms such as management, cost planning, programming, communication, etc., are O.K. words. The fact that the RIBA now has a Management Committee, which it did not have before, suggests that the profession is ready to learn.

There is of course the danger that the gimmicks, such as cost planning and programming, will be accepted as all there is to learn. Useful as they are, they only scratch the surface. The real business of educating for management is to develop an attitude of mind; a concern about how best to use men's initiative, individuality, skill and inspiration in concerted effort but with sufficient flexibility to allow for growth and change in each individual's capacity. The most progressive industries apply management principles against which they judge any given situation. These principles generally have been proven in practice, though weaknesses appear from time to time and new ideas are constantly evolving.

The sphere of management which deals with machines and materials is relatively easy to grasp—facts, figures and a few equations that computers can now do. But the handling of men who provide ideas and the motive force for putting them into effect requires knowledge, care and skill. The traditional relationships to which the profession and the industry still cling may be as inapt in modern conditions as traditional plan forms and construction often are.

Most architects do not clearly understand how to organise men or transmit ideas to get the best out of their colleagues and subordinates. It is much more than just a matter of common sense, good manners and consideration. Our best architect leaders seem instinctively to have the right touch, and the reputations of the teams they lead are proof that their methods are sounder than others. Judged by the best management practice however there is still a lot to be done.

It might be asked if the principles that are valid in other fields can apply to architects. A world authority on management has written ". . . the leader has always to be doing two apparently incompatible things. He has to encourage his administrators to promote order, to maintain established routines. At the same time he has to protect from their wrath the originals, the inventors, the crazy people to whom order is anathema, and an established routine a challenge to change it, because it is from this lunatic fringe that he is most likely to derive something original. They may have a large litter of illegitimate ideas on the way; they usually do. It is the leader's job to arrange to have them drowned or otherwise disposed of and to comfort the bereaved parent." This was written about the problems of managers generally, but as a statement of the architect leader's problem it could hardly be bettered.

If it can be agreed that the profession should push on with education for management, how should it be tackled? There appear to be two levels at which it can be considered; at job level; and at top level. For nearly four years the Institute of Advanced Architectural Study at York has been holding courses regularly on Project Management, dealing with the techniques of management somewhat on the same lines and with the same material as the RIBA series of cost conferences. The regularity of the courses has enabled offices to plan the training of their staff at job level, which several have done, and the courses have always been well subscribed. The RIBA might take advantage of the promising experience of continued support at York to encourage at various centres similar management courses for architects at job level. Such post-graduate courses should become a normal part of training.

Before the untimely death of the late Director, the Institute at York had planned to run courses on Top Level Management, in addition to Project Management. The problem was to find the lecturers that could deal adequately with the subject. It is to be hoped that something will still be arranged because it is in top level management that the industry and the profession are so sadly lacking. Now the RIBA should plan an attack on top level management education. For other fields there is the Henley Staff College; but as much of what is done there will be irrelevant to the building industry it may not be the most suitable channel for propagating ideas on architectural top management. A possible course of action would be to select a cadre of top level architects, already keenly interested in management, and of not too great an age, and arrange, with financial support if necessary, for them to have the benefit of the best top level management training to be found in any field. Being men of ability these architects could digest all that was relevant to the building industry, and make a fair stab at filling any gaps. This cadre should then prepare a handbook of top level management for architects, which would probably need amendment in a few years, but would serve meanwhile as the best available guide to training. An annual, or twice annual, course based on the work of the cadre of architects should be held to keep ideas alive, and act as a forum for the exchange of ideas as they develop in practice. Post-graduate work in universities could no doubt be brought to bear on the subject as well.

If the profession does not soon acquire the wisdom in top level management to give a lead as to how the building industry ought to be reorganised to meet modern demands, someone else may do it, and ignore the architect's contribution, as the MOT has done in respect to roads.

As a last thought, the lack of management knowledge at all levels of the profession, and the architect's position on the Pilkington list of professional incomes, might not be coincidental. Also it might not be a coincidence that the British chemical industry, the most wealthy and productive of all industries, is also the most advanced in management.

D

AN OUTSIDER'S PLAN

Oxford since the war has become a city which is increasingly bursting at the seams. Its beautiful core, which people who knew it in the past persist in regarding as "Oxford"—a place to be preserved, protected and unchanged—has become more and more deeply embedded in surrounding subtopian mess, through which thunders a ceaseless flow of traffic. There was a time when the University and the fringe of shops and enterprises serving it were Oxford's city centre. This is no longer so; the city has grown too large and sprawling, traffic too heavy, pedestrians too many, until redevelopment has become urgent, to provide an adequate commercial, social and communications centre for the city which would serve the needs of Oxford as a whole, and rescue the University and enable it to solve its own expansion problems, within its precincts.

Aerial photograph of Oxford from the south with superimposed upon it Townmakers' proposals for the redevelopment of the St. Ebbes area and the commercial area to the north and west.

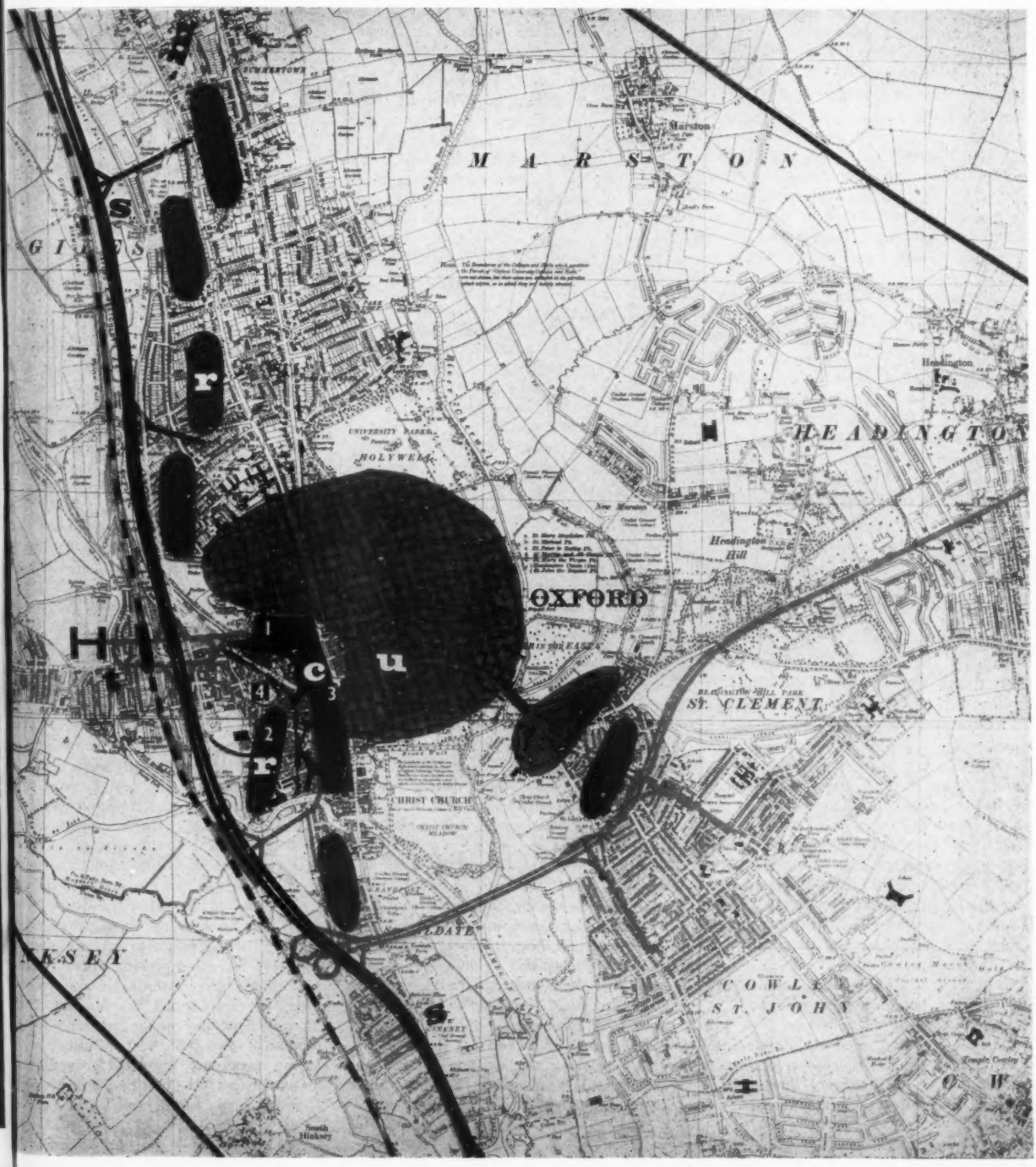


N FOR OXFORD

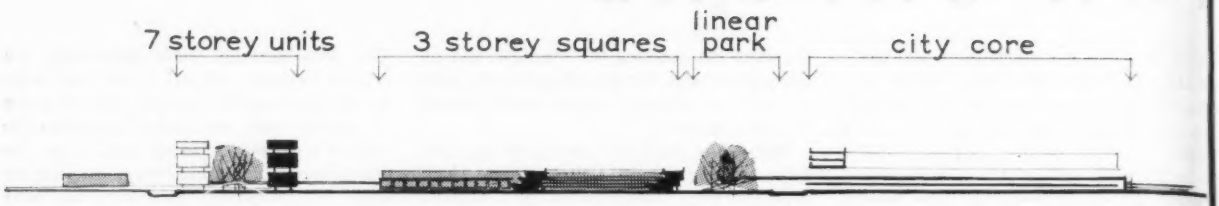
In the past five years and more the battle of Oxford's roads has been fought to a standstill, caught up in an endless entanglement of talk about the pros and cons of a variety of relief roads. Largely owing to the heavy influence of University opinion, the Oxford traffic problem has been reduced almost entirely to the question of saving the High by wrecking the Meadow, and no adequate scheme for providing the city with a really satisfactory central road system has been produced.

Meanwhile, the City Council has acquired large areas in the St. Ebbes region, which stretches from overcrowded St. Aldate's to the river and the railway station. This area contains some once-pretty but ruinous cottages and old houses and a lot of derelict property, a good deal of which has already been demolished (including the famous Gas Works which used to be the first glimpse of Oxford when arriving by train). No comprehensive scheme has been produced for the redevelopment of St.

Below, Townmakers' plan for Oxford. On the left, parallel with the railway is a proposed spine road, 's s,' to which is joined, at the lower 's,' a road which collects the traffic from Headington and the built up area between St. Clement and Cowley. 'U' is the university area, and 'r' the residential area of high-rise flats shown opposite. 't' is the transport centre where passengers by car, train or bus can disembark for 'c' the city core. Cars are parked beneath a pedestrian deck at Gloucester Green, '1,' residents go to the rebuilt St. Ebbes area, '2,' the pedestrian deck is planned to extend down St. Aldate's, and past Carfax '3.' '4' is the Castle Mound.



OXFORD (continued)



Section AA, showing, from left, the proposed school, the seven-storey maisonette blocks, the residential squares, and the pedestrian ramps in the linear park leading over the sunk core road to the shopping and commercial core with car parks under.

Ebbes: one of the proposed new traffic roads would cut right through the area, preventing its development as one area, and the city architect's department has so far produced plans only for some relatively low density maisonettes in the English Mediocre style for families already displaced by demolition.

A third development is the council's project for removing the central bus station from the old cattle market at Gloucester Green to a site nearer the railway station (also to be rebuilt in the fairly near future), and building a multi-storey car park on the Gloucester Green site.

Clearly the time for an integrated redevelopment scheme for Oxford is now, and if the opportunity is lost there will be no possibility of a planned solution of her traffic problems or the comprehensive development of a worthy city centre to replace the existing decayed areas.

This is the background to the comprehensive, three-dimensional scheme which has been prepared by architect Tom Hancock with the help of John Toovey and of two architect-town planners from Copenhagen, Anne Marie Rubin and Claus Bremer. The project was initiated by Townmaker Ltd. who are seeking facilities from the City Council to carry out part of the plan. Last month the scheme was exhibited in the Town Hall and a meeting with the councillors was arranged.

Essentially the Hancock plan consists of three proposals for immediate consideration:

1. A new road plan to solve the city's communications problem;
2. Instead of an isolated, multi-storey car park at Gloucester Green, the development of this whole area as a commercial and social centre for the city, at several levels, with a core road and three-deck car parking below a pedestrian piazza, linking office blocks and shops, hotels, restaurants and the various amenities of life in the centre of a great city, and connected with the old city centre only by pedestrian ramps.
3. The development of St. Ebbes as a high-density residential area (which could include new college buildings if desired).

Clearly a logical road system is a prerequisite of any unified development scheme: the likeliest scheme at present to be adopted is one for very limited relief of the High Street and Cornmarket, and involves bisecting Christchurch Meadow, increasing the flow of traffic in St. Giles, cutting off Worcester and Nuffield Colleges from the rest of the University on a traffic island, and trisecting the St. Ebbes area.

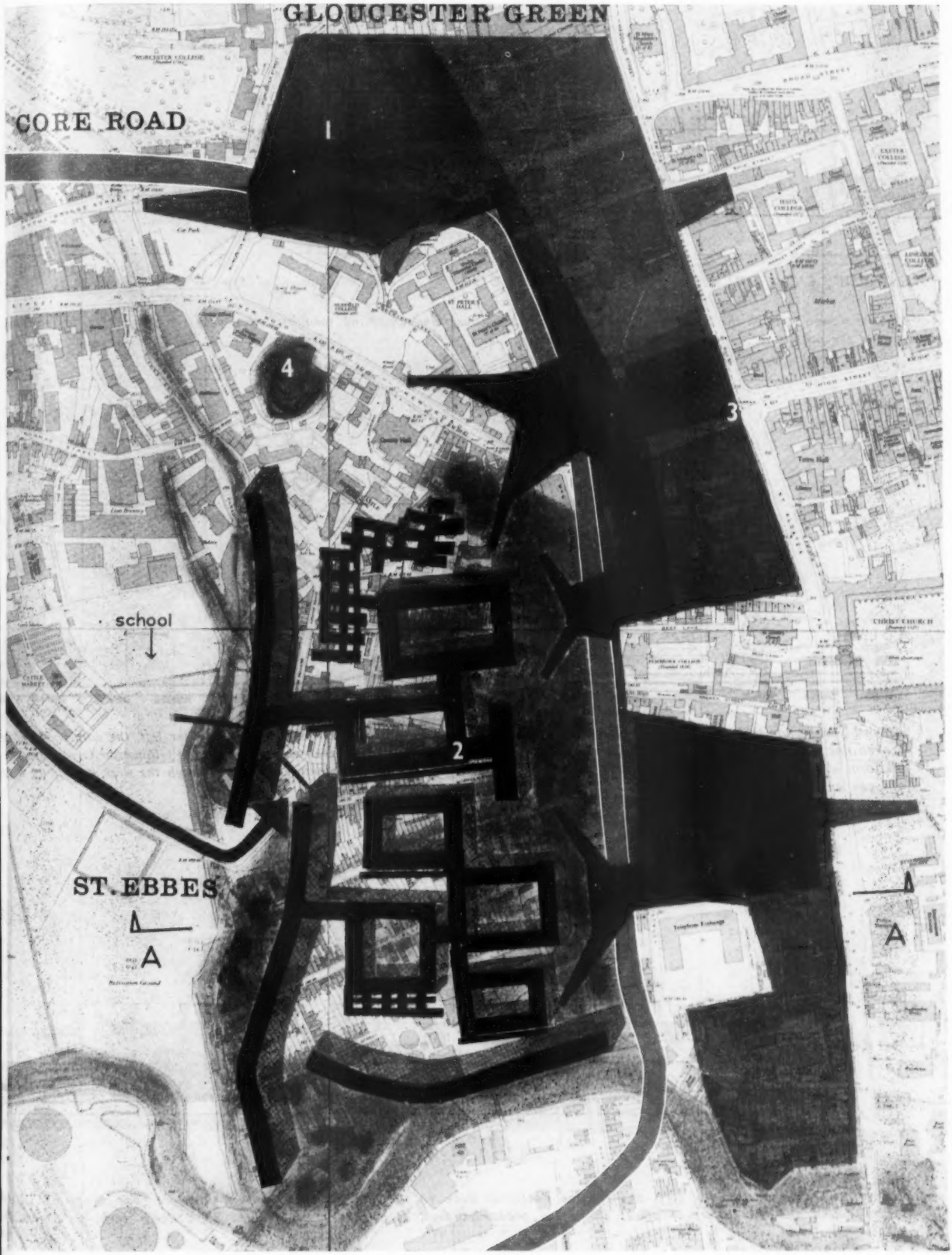
Instead, Townmaker propose that Magdalen Bridge should be closed to traffic, becoming the frontier of a University precinct through which through-traffic does not pass. A new road should run well to the south of the University Precinct, raised above the low-lying water meadows, spanning the Thames by an elegant bridge, to join a new spine road running north-south alongside the present railway and crossing existing roads by flyovers.

The new railway and bus stations (and some time, no doubt, a heliport?) would then become the communications centre for the whole city, and at this point the north-south spine road would be joined by a low level core road, running to Gloucester Green and back to Folly Bridge, skirting the residential areas, lined with car parking facilities at a number of levels, depending on the relative levels of the road and the pedestrian deck above. This service road would relieve Cornmarket, Queen Street, and the little shopping streets round about of much wheeled traffic, making shopping there very much easier and safer, and these areas could retain their present trade pattern even when eventually linked to the pedestrian deck spreading behind them. This deck would at first cover an area of some ten acres, with the various commercial and cultural buildings growing through it, as it were, and linked by smaller shops, restaurants, hotels (both badly needed), and perhaps a new theatre. The buildings would be designed "in the round," being serviced from below, and the piazza, besides offering practical amenities which the canyons of Cornmarket and Queen Street cannot possibly provide today, would give splendid views of the University's great roofscape, linking the town with the university visually. John Morton suggests that if such a conception caught on, the future developers of the Queen Street area might well decide to plan their buildings to link with this pedestrian deck. And the present plan could later be extended into St. Aldate's, where a new covered market could be provided, replacing the existing market and relieving the small streets between Broad Street and High Street of their present intolerable weight of service vehicles. That site could then become available for much needed university expansion, extending the precincts almost to Cornmarket.

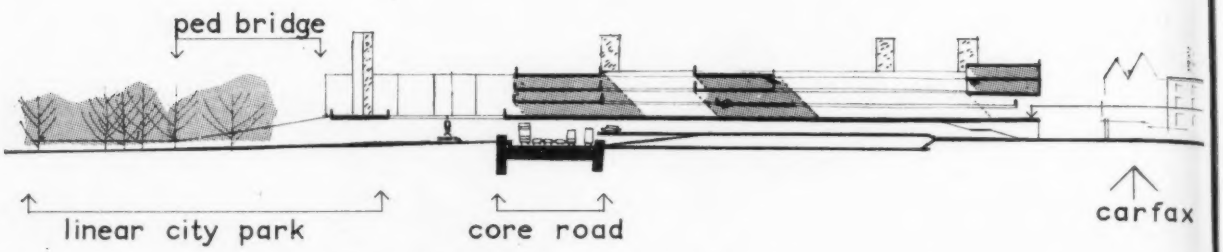
It is already agreed that St. Ebbes is to be a residential area, and Townmaker has applied to the Council for the strip of land running along the river, where they have plans to build three blocks of seven-storey dwellings, consisting of maisonettes and flats, entered from elevated pavements on the third and sixth floors, and having a wide pedestrian walk on the roof, with a restaurant, and nursery school for residents' infants. Here, Townmaker suggest, could be married quarters for undergraduates, who at present if they marry have to find their own bed-sitters scattered about the city. From across the Thames these blocks would present something of the appearance of a city wall, while from the top they would give another wonderful view of the university. The area within the enclosure between this "wall" and the city core could be developed in a series of three- and four-storey squares and terraces, with small groups of corner shops serving the inhabitants of St. Ebbes.

The Townmaker plan for new roads is clear, precise and logical. The design for the St. Ebbes blocks of riverside dwellings is worked out, and could be finalised rapidly if the City Council approved the conception. The scheme for the pedestrian piazza, creating a new, high-level city centre, is still in the sketch plan stage, and its conception is clear and imaginative. It is the most comprehensive plan which exists, and if the City Council accepts it John Morton's idea is that it should be carried through in detail in close co-operation with the city's architect's department. The cost has yet to be estimated, though that it would pay handsomely for itself before long seems unquestionable. The problem of acquiring the necessary sites is of course much simplified by the fact that the Council already owns large areas in St. Ebbes and the whole Gloucester Green area. Enough to be going on with and to prove to private enterprise —always so unenterprising when imagination is involved—that this is a plan to be supported in a mood of enlightened self-interest. It could be a test case for the proposals discussed so seriously at the recent conference on City Redevelopment by the Civic Trust. It will be very exciting if Oxford's City Council rises to the occasion.

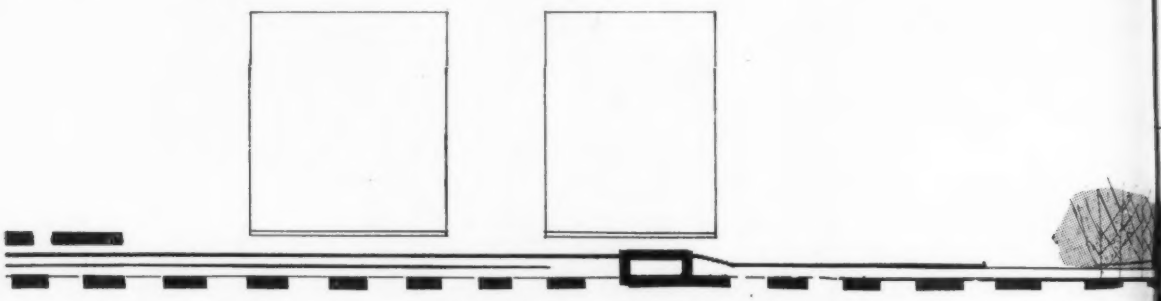
Plan of the redeveloped centre, showing the core road (with white outline) running under the pedestrian ramps and under the pedestrian deck over Gloucester Green, 1, which might extend to St. Aldate's, 3. The rebuilt three- and four-storey housing of St. Ebbes is at 2.



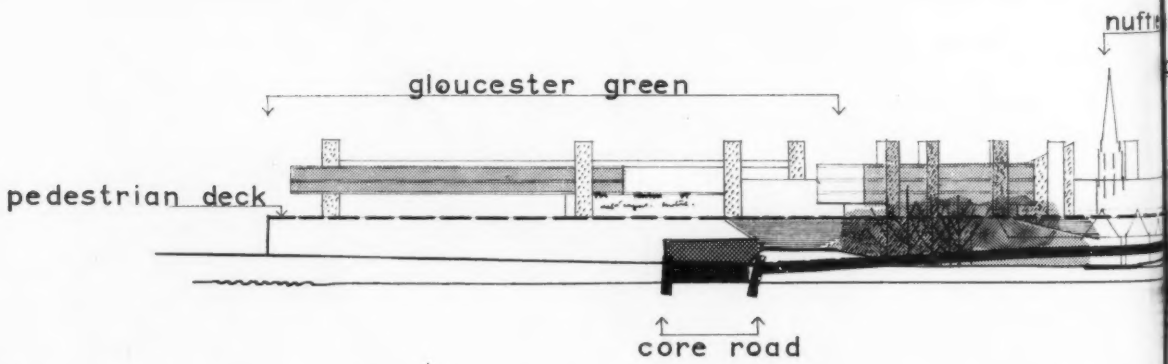
OXFORD (continued)



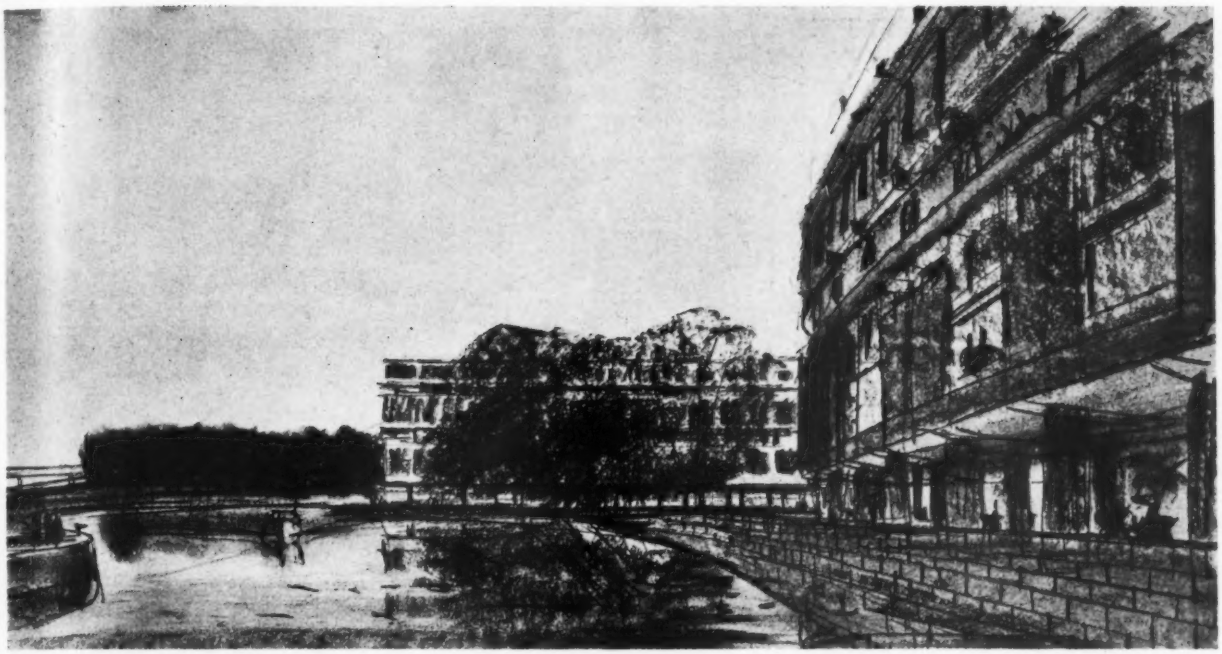
An east-west section through the city core at Carfax, showing the pedestrian ramp, the memorial (see plan overleaf), the sunken road, garages, and the pedestrian platform with commercial buildings over.



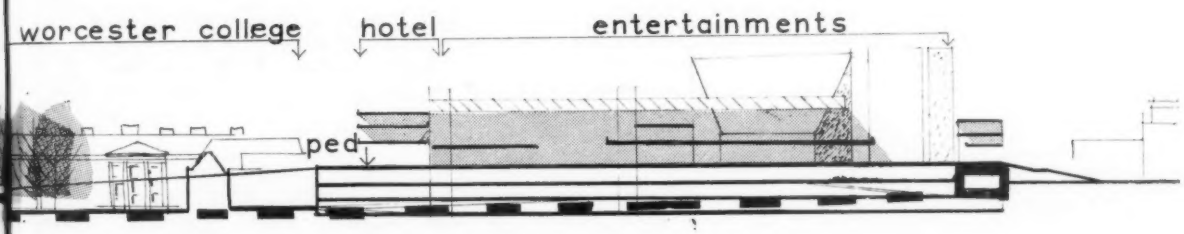
An east-west section through Gloucester Green, with office blocks towering over the transport centre on the left, the core road shown broken line running past Worcester College and running beneath the Gloucester Green redevelopment. At Gloucester Green is a ped platform with garages below for 1,500 cars. Shops, offices, an hotel and entertainment centre rise through the deck and form a co of open and covered squares.

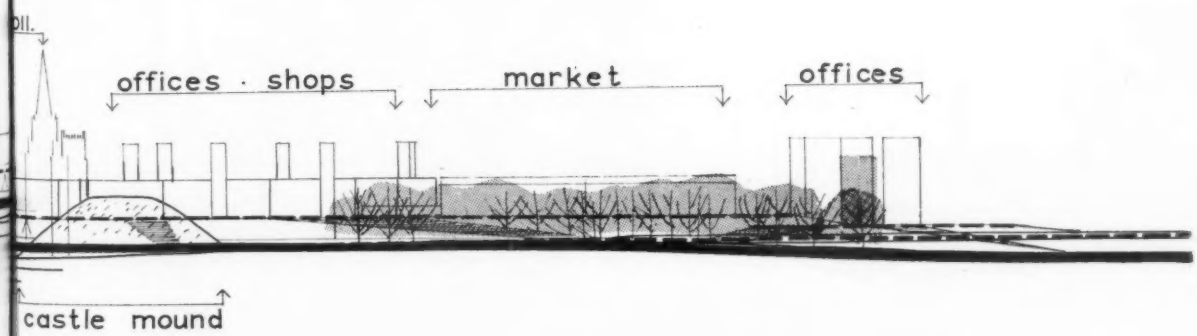


The west elevation of the new core, showing the pedestrian deck on the left, a section through the core road, Nuffield Colle Castle Mound and the towers of offices above the pedestrian deck as it runs south, fronted by a linear park, to Christ C



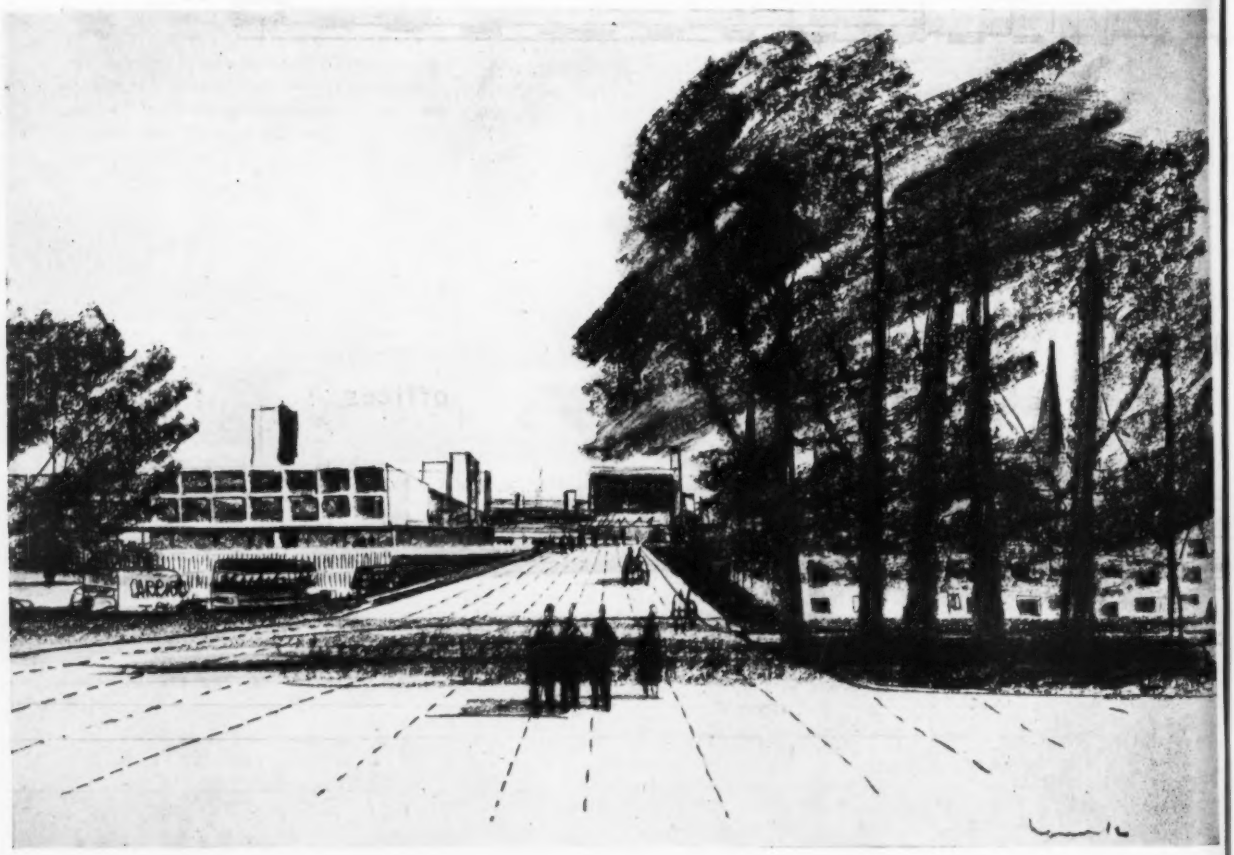
The seven-storey buildings proposed around the perimeter of St. Ebbes to form a city wall, with pedestrian walks on the roof tops giving views over Oxford, and at ground level beside the river.

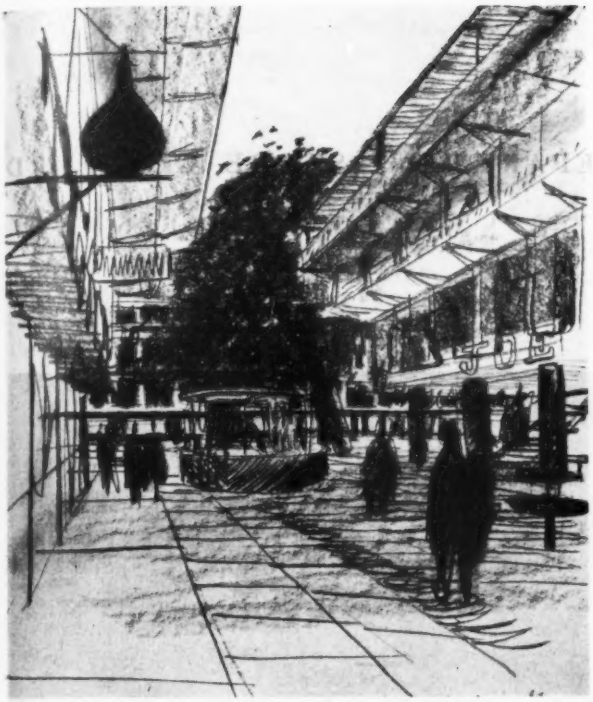


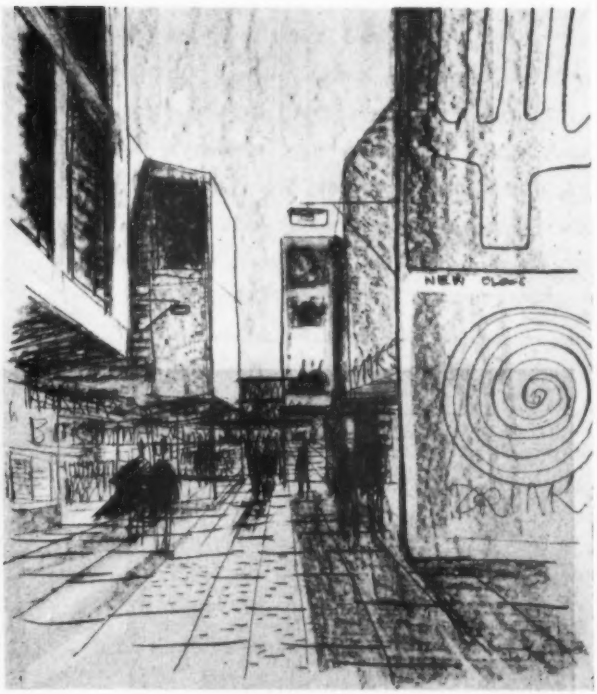




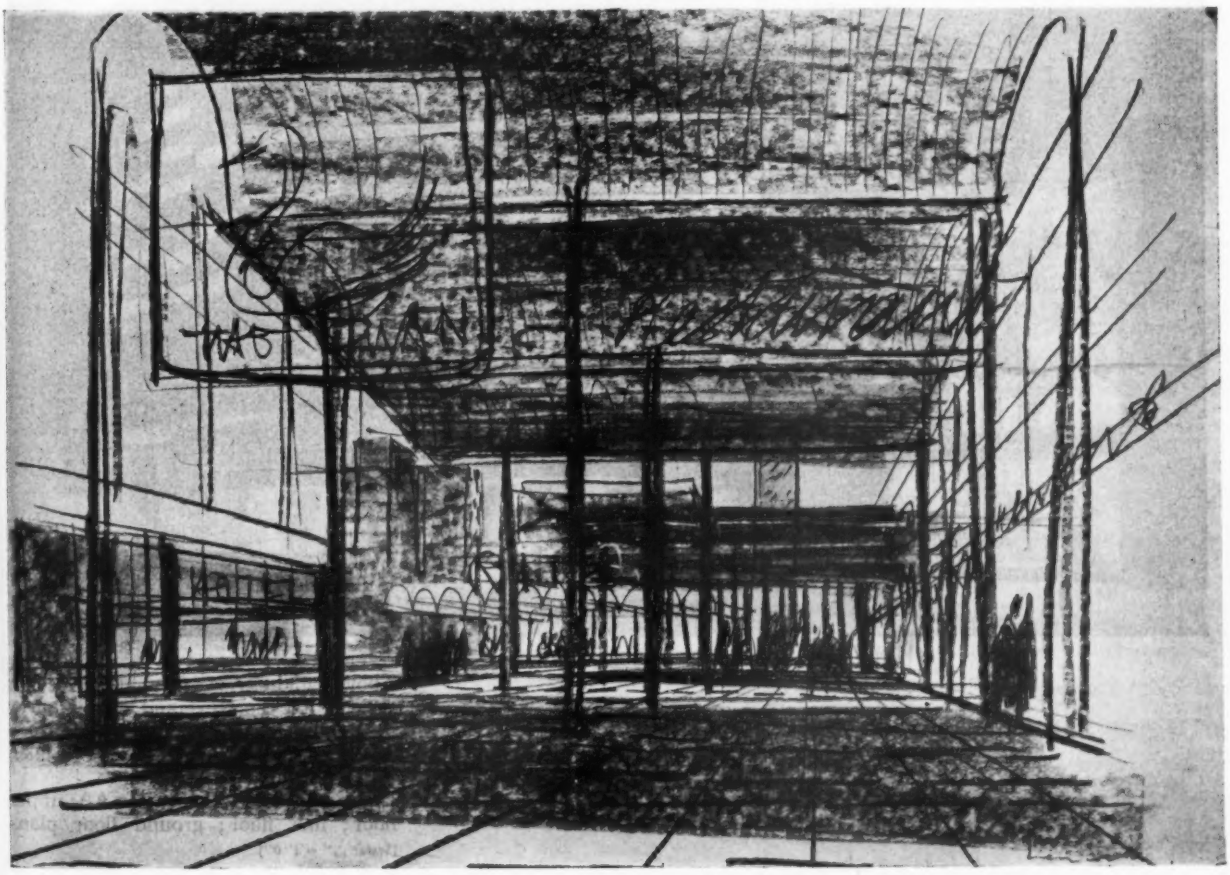
The first stage of the proposed city core with its raised pedestrian levels at Gloucester Green, (1) and at Carfax, (3). The core road running below is indicated by a white outline. The Castle Mound, (4) stands opposite Nuffield College. Below is a sketch of the pedestrian ramp running over the core road and up to the Gloucester Green deck. On the right is the linear park with Nuffield College behind.







Above left, a shopping area in the St. Ebbes residential area. Above right, a corner of the raised Gloucester Green piazza showing that with freedom from traffic high densities and intimate scale and enclosure can be obtained. Below, the piazza from the top of the ramp, showing open and covered pedestrian spaces.

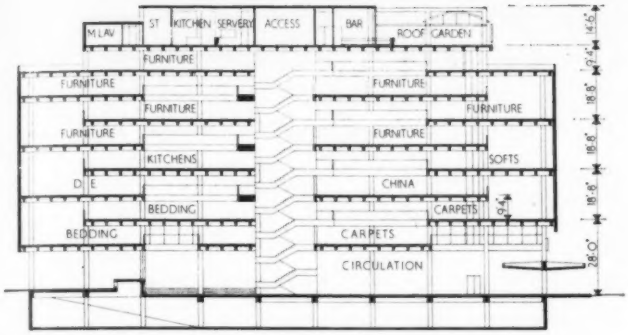


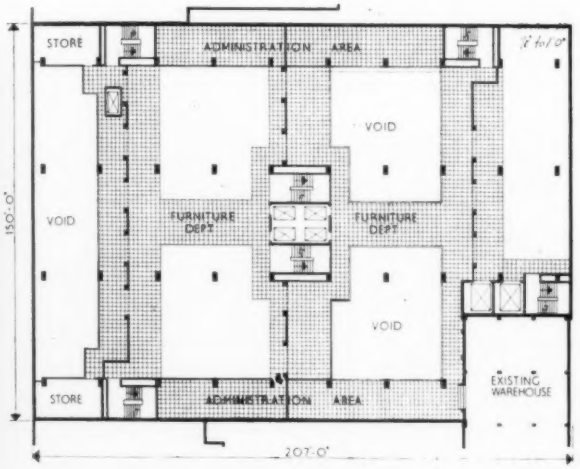
DEPARTMENT STORE AT ILFORD

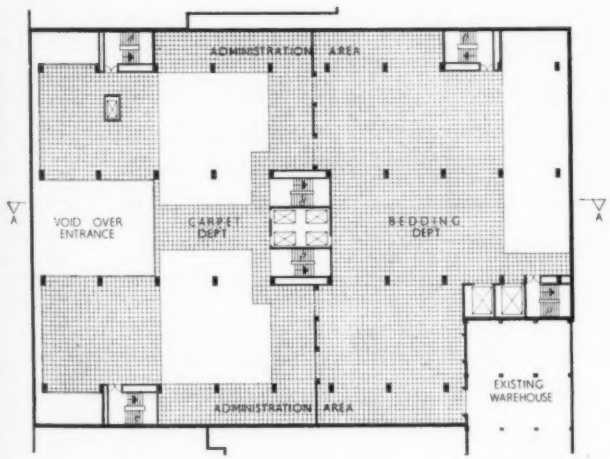


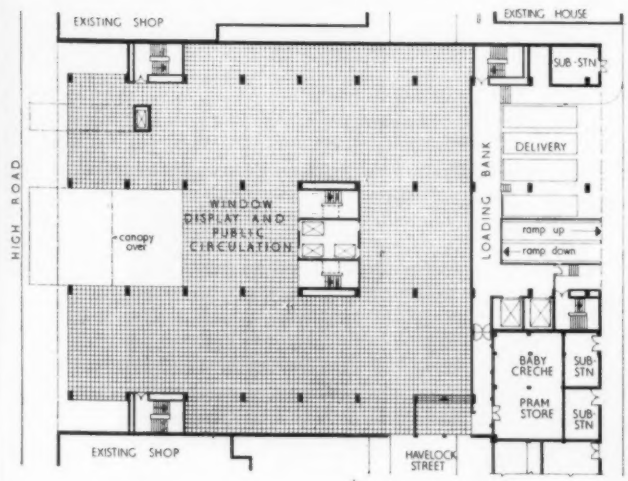
Above: night view from Ilford High Street (The curtains and awning over the entrance are temporary features connected with the opening ceremonies)

Right, top to bottom: section AA; upper floor; first floor; ground floor plans [Scale: $\frac{1}{16}$" = 1' 0"]









On March 16, 1959, two large stores at Ilford were totally destroyed by fire. One of them, Moulton, was rebuilt (to a design by Bronek Katz and Vaughan) and occupied only 184 days later. The other, Harrison Gibson's furniture shop—designed by Donald Forrest, was "dedicated to the home-buying public" with all the hullabaloo of modern advertisement—band of the Grenadiers, fanfare of trumpets by the Royal Artillery, flypast of pigeons, and designer David Hicks in attendance—on June 16. Need it be said that the two buildings, separated only by two small shops, relics of the past age in Ilford, were designed entirely without consideration of or relation to each other? As the photograph shows, they may speak the same language but are scarcely on speaking terms.



Harrison Gibson's new shop is half as big again as the one next door, but even taking this into account the rate of building is slower—200 sq. ft. per day compared with 360 sq. ft. per day. Nevertheless, it still represents a considerable achievement, particularly when one remembers that this rate covers all the preliminaries before building can begin and includes not only the bare building but complete fitting out for display requirements. Furthermore, unlike many of the commercial offices built at great speed, the building is one of some architectural merit. It is also one more example which calls in question the doctrine, so loudly preached in the last ten years, that every detail of the design should be determined down to the last wood screw, before the building process starts. Speed and efficiency in this instance are much more likely due to desperately hard work and first-class co-ordination between architects, consultants and nominated contractor. Nor does it appear that speed has been bought at great financial expense, since the cost for the basic building, heavily serviced with electricity, artificial ventilation and a full-scale sprinkler system, and carrying some very

heavy floor loads, works out at only slightly more than 100 *shillings per sq. ft.*

Architecturally, the building is a remarkably uncompromising expression of big-shop requirements, centred as they are on modern selling techniques. There is no active persuasion to buy; the idea is simply to surround the shopper with such a galaxy of temptations that he feels virtuously economical in succumbing to only a few of them. Where the village grocer shows his range of goods by cramming them all in the window, the sophisticated sales promoter seeks first to get the customer inside, and then to beckon him onwards throughout the whole of the shop where each item is spaciously and attractively displayed. To this end the street floor is devoted exclusively to a series of window displays forming a visual index to the contents of the upper floors. Above this, right up to the de luxe *restaurant on the ninth floor, the display levels are staggered and interleaved so that from each of the overlapping floors at least two other departments are visible. Where the overlaps occur the ceiling height is only 7 ft. 6 in., but these areas are balanced and enhanced by contrast with the two-storey voids on either side.*

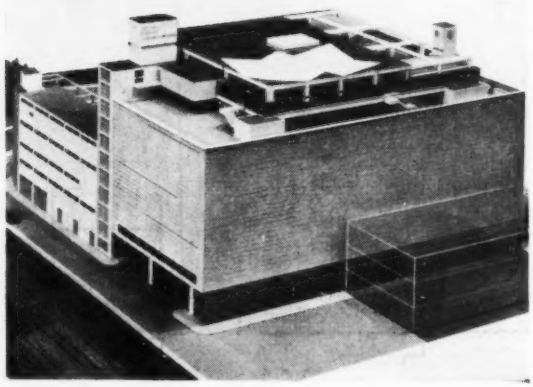


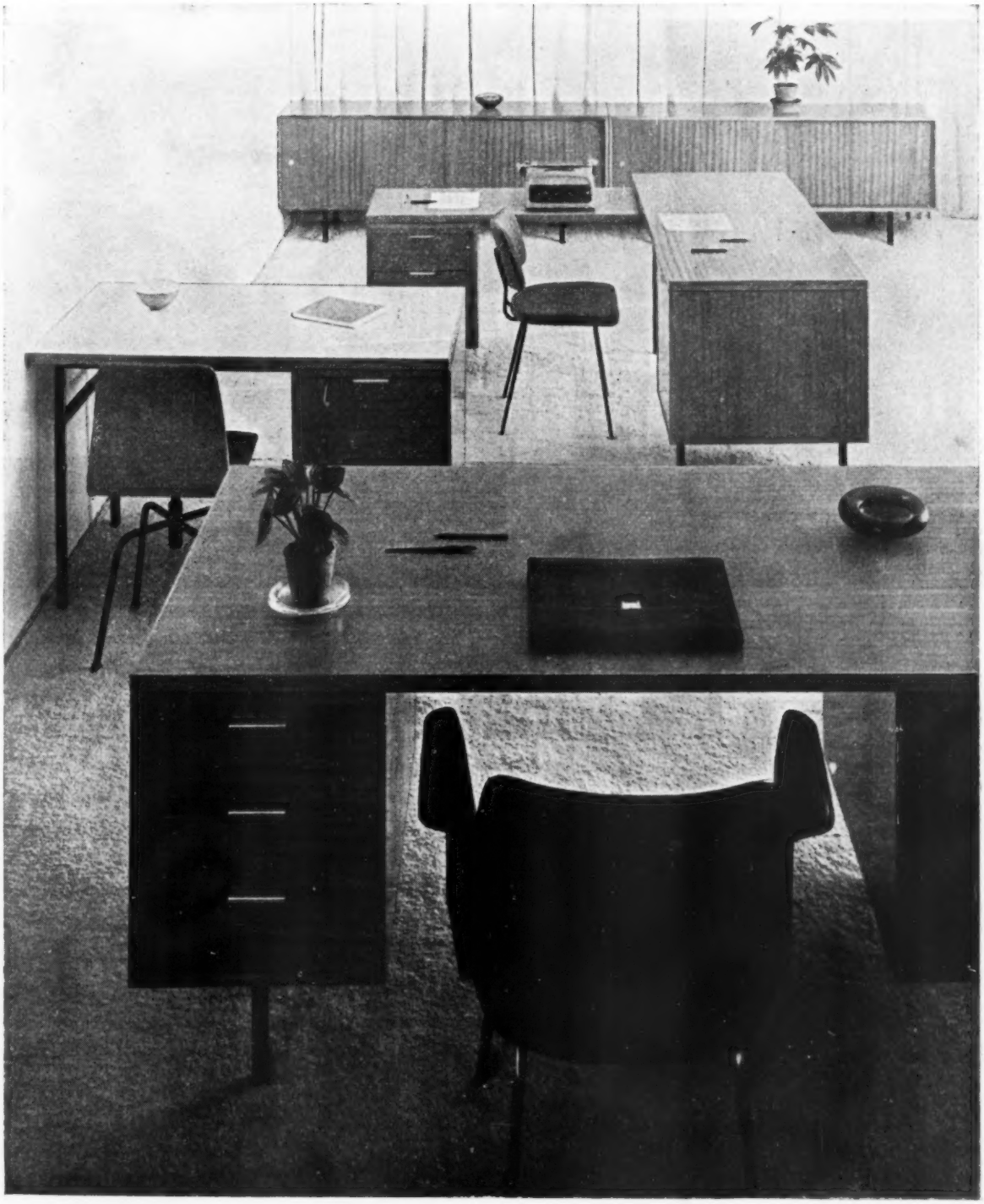


In such a building there is no place for conventional fenestration or natural light. As in the theatre, the environment is intentionally artificial, even to the decorative flowers and plants, so that no matter how grey the Ilford skies may be, the patio furniture and the Italianate Contemporary are bathed in a perpetual Portofino sunshine. Hence the purpose of windows is neither to admit light nor to give an outward view. On the ground floor they are simply to allow people to see inside, while upstairs they are principally a concession to the Fire Officer who wants somewhere for the smoke to escape if ever this building should suffer the fate of its predecessor. The claim that such windows also serve for colour matching in natural light wears rather thin when one finds that they are all covered with sunshine yellow net.

The interior detail of the building is restrained and consistent throughout, acting as a permanent background and foil to the more exuberant character of displays which are changed from time to time.

Not the least interesting aspect of the building is that the whole of the superstructure from the first floor upwards is based on the "Intergrid" system of prefabricated prestressed concrete first developed by the main contractors in conjunction with the Ministry of Education development group for use in schools. The need for large floor areas free of columns has demanded considerable modification of the system—the internal columns are, in fact, all cast in situ—but the use of prestressed beams and precast cladding units is undoubtedly an important contribution to the speed of erection, and the success of the design externally is very largely a measure of the appropriateness of the system for this kind of project. The building also provides evidence that prefabrication can profitably be married to more traditional techniques since the basement (parking for 100 *cars) and ground floor were both carried out in situ, thus enabling work to go ahead while the precast units were being manufactured.*





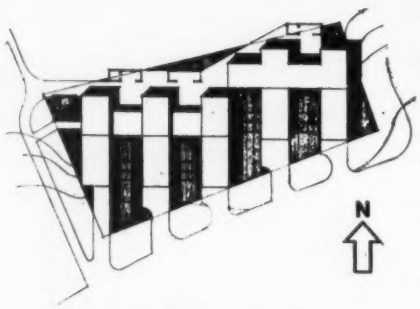
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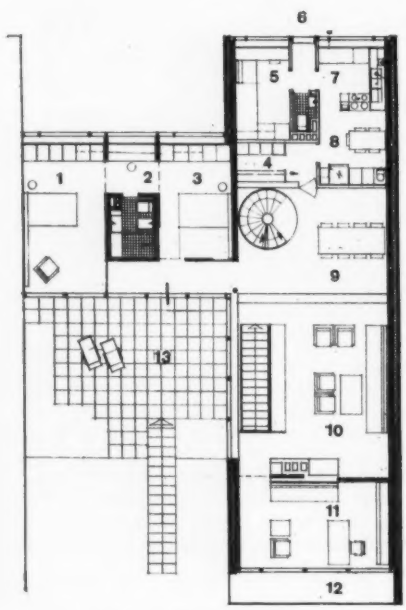
HOUSES AT TAPIOLA, FINLAND





Site plan

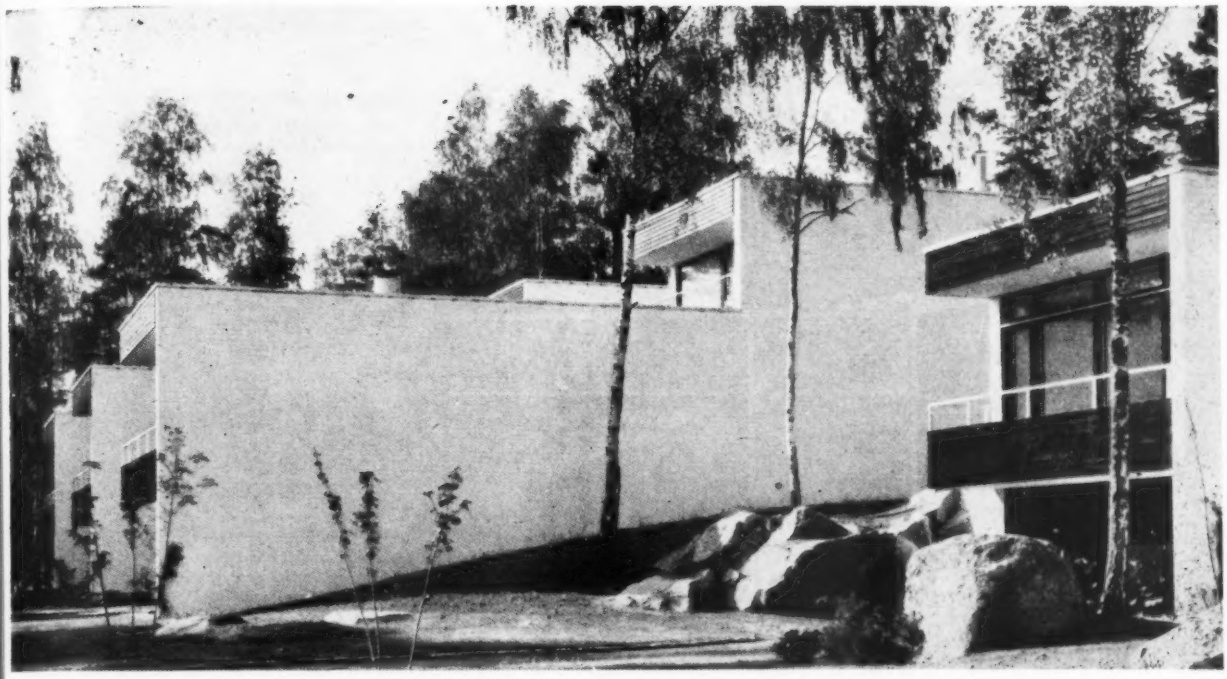
This stepped terrace of five houses in Tapiola, Finland, was designed by Kaija and Heikki Siren, of Helsinki. The houses are similar outwardly, but differ in their internal layout. Interesting points are that the kitchens are designed in two parts, a kitchen proper and a preparation area, containing a small dining nook, and that the living section, dining room and bedrooms share one large area, from which the bedrooms can be shut off with movable partitions. The terrace is also part of this area. The houses contain two stairways, a straight flight of steps, tiled like the hall and living room entrance and linking the one to the other, and a metal spiral of open stairs linking basement, living and upper floors, with a rooflight above which lights the interior of the house. These two stairways are visible the one from the other and provide an enticing entrance to the living area. Trees and rocks have been retained around the terrace, and at the back are a series of courtyards created by providing each house with a simple brick box containing a drying room and storage space. A living room is shown, from the top of the stairs, opposite, bottom right. On the right of the stairs a long window overlooks the terrace, on the left a cupboard fitting, containing, among other things, radio and TV sets, runs the length of the stair well.



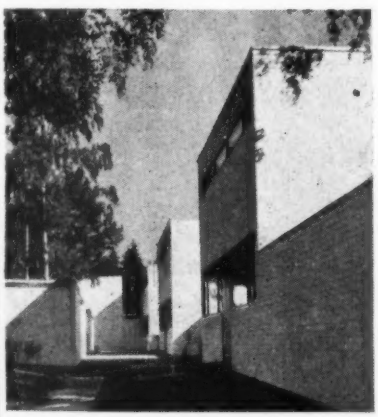
Plan of typical living floor

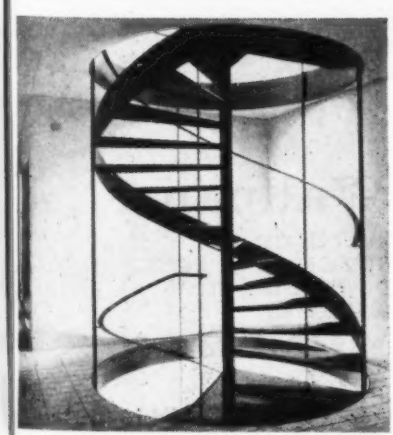
Key to plan of living floor

1. Parents' room
2. Dressing room
3. Children's room
4. Cupboards
5. Maid's room
6. Back entrance
7. Kitchen
8. Utility room
9. Dining room
10. Living room
11. Studio
12. Balcony
13. Terrace



The three houses which project to the south, from the south-east, with south front of house 4 on right.





Top: courtyard on the north.
Bottom: the spiral back staircase.



Looking down the front staircase from the living room.



Drawing by Eric Thomas

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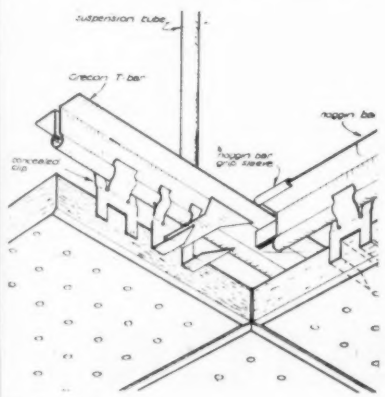
technical section

THE INDUSTRY

This week Brian Grant describes a ceiling fixing system, a gas boiler, and a range of acoustic panels.

Suspended Ceilings

The Grecon system of fixing wallboard or other linings was introduced some months ago, and to the very economical standard method has now been added a concealed fixing system which is shown in the drawing below. The standard bulb tee section is used, suspended by wires and hangers, or steel tubes, and the dagger shaped ends of the suspension clips are pushed sideways into the panels, leaving the vertical tongues of the clip to spring over the bulb at the bottom of the tee. The panels are thus butt jointed all round and any individual panel can be removed without having to disturb any others. A demonstration of all the Grecon systems of fixing was held recently at the Redhill factory of Howick & Co., where there are samples of many different types of lining boards and acoustic tiles, as well as reinforced polyester sheet used as double glazing and Grecon fixed. The standard fixing clips can also be covered with a plastic capping strip, which is available in a range of colours. (*Grecon Systems Ltd., 29/30, St. James's Street, London, S.W.*1.)



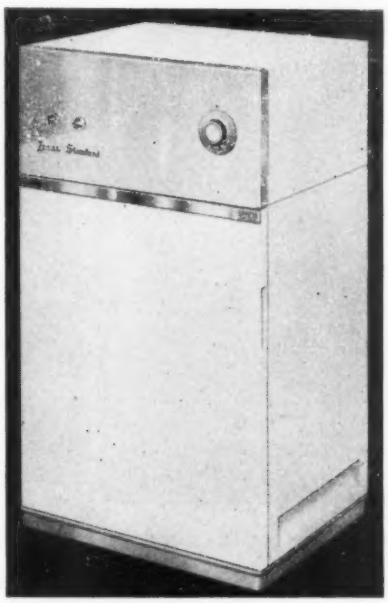
The Grecon ceiling fixing.

Gas Boiler with Electric Ignition

A new Kingston gas boiler for domestic central heating and hot water has recently been announced by Ideal. It has an electrically operated "Flamaster" ignition control which allows the boiler to be remotely controlled by a remote electric switch with no need to light pilot burners, and the boiler shuts down automatically if power supplies should fail. Clock controllers and room thermostats can easily be fitted.

The Kingston is a sectional boiler, but has been so designed that sludge or lime can be removed from the waterways through access panels at the side, and it can therefore be used as an ordinary domestic boiler supplying hot water to a direct cylinder. For small bore heating systems an Ideal-Hotflow accelerator is fitted inside the casing and a mixing valve can also be fitted out of sight at the back of the boiler.

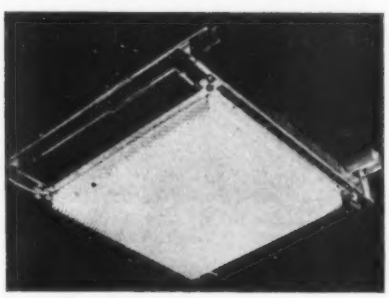
The boiler is made in two sizes with outputs of 25,000 and 35,000 B.Th.U. per hour. The smaller costs £50 plus £9 13s. 8d. p.t. or £85 plus £16 9s. 2d. The larger is £54 and £89 for corresponding models, but apparently no purchase tax is payable so that it ends up cheaper than the small model. Standard colour is white with a blue control panel and grey base and smoke hood. (*Ideal Boilers & Radiators Ltd., Ideal Works, Hull.*)



The Ideal Kingston gas boiler.

Acoustic Ceiling Panels

An addition to the range of Bowater acoustic ceiling panels is the metal T/A (thermal/acoustic) version, which is made to a 20-in. module. In essentials it is a tray of expanded metal, with 1-in. sides, which has a fine crescent pattern steel mesh to allow maximum passage of sound. The mesh tray is filled with mineral wool backed with asbestos paper and is held in a tin-plated steel frame. The mesh tray is zinc plated and passivated before being dipped in plastic paint to any specified colour so that it is rustproof and washable. Between the filling and the inside of the mesh is a very thin (0·0015 in.) sheet of white p.v.c., so that the panel is dustproof and the face has a decorative effect, while the flanges of the frames give a patterned effect to large areas. Fixing may be direct to timber battens or direct to concrete soffites using channel and cross plate, or by the Bowater rigid metal fixing system shown in the illustration. Acoustic tests on a specimen of 36 panels mounted on a 12-in. air space showed a high absorption coefficient over a wide range of frequencies, reaching a figure of 0·9 in the middle ranges. The panels, erected as a suspended ceiling, passed a 2-hour fire resistance test at Boreham Wood. Cost, fixed in suspended ceiling form, is 45s. to 50s. a square yard. (*Building Products Division, Bowater Organisation, Bowater House, Knightsbridge, London, S.W.*1.)



Bowater metal acoustic panel.



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17 CONSTRUCTION: GENERAL

BRS experiment in co-ordinated building

This article reports on some experimental terrace houses recently completed at Hatfield New Town by the Building Research Station. The object of the experiment was to see if it is feasible to " build to dimensions " using traditional construction and to see if, by making slight modifications to the sizes of existing components, wastage and cutting can be reduced. The answer in both cases is yes.

When in 1956 the European Productivity Agency agreed to try out the 4 in./10 cm. module, the two British representatives in the project, BSI and BRS, each agreed to carry out field trials. The BSI conribution took the form of a single storey laboratory building at Hemel Hempstead (architect Bruce Martin) which was completed late last year and was reported in the JOURNAL of January 28, 1960.

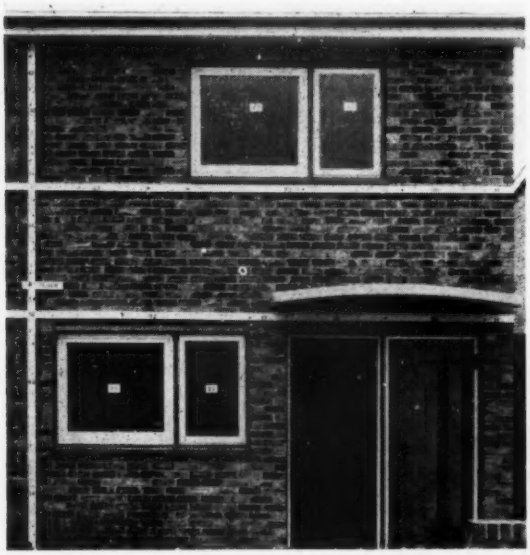
The BRS contribution is in the form of housing at Hatfield New Town. This is in four parts, of which only the first two have been built so far. These two instalments are both two storey terraces, one being traditional all-brick (Fig. 1) and the other brick cross walls with timber infill panels (Fig. 2). The third instalment is to comprise three bungalows built of precast concrete units and the fourth is to be a four storey block of flats of concrete frame construction. The BSI laboratory was constructed exclusively of factory made components and was a straight experiment in the use of the 4 in. module. BRS have always questioned this interpretation of the 4 in. module on the grounds that it makes accommodation of brick sizes difficult and that it gives insufficient scope in the small dimension range. To show a way out of this difficulty they propose the use of a system of " preferred sizes " based on the " number pattern "* and these first two instalments of their contribution are, in fact, essays in the application of these related ideas to modular theory; or (to put the matter the other way round) in showing how traditional materials can be modified to fit a modular framework.

In fact this fieldwork is only the final stage of a much larger study, which included an examination of the building industry as a whole, and the object of which was to find out the economic effect of varying, reducing or adding to established sizes of components.

The Design

Although this exercise forms part of a modular co-ordination study, the emphasis is on co-ordination rather than on modularity. If the houses at Hatfield may be called modular, they are based not a 4 in. module, but on a 1¼ in. module, for 1½ in. is the least

* See AJ April 5th, 1956.



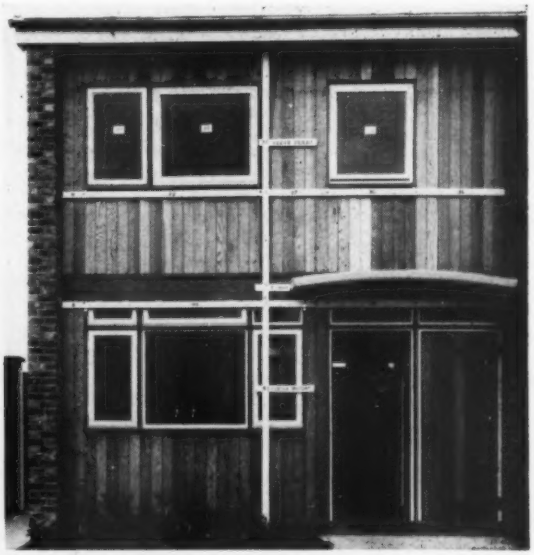
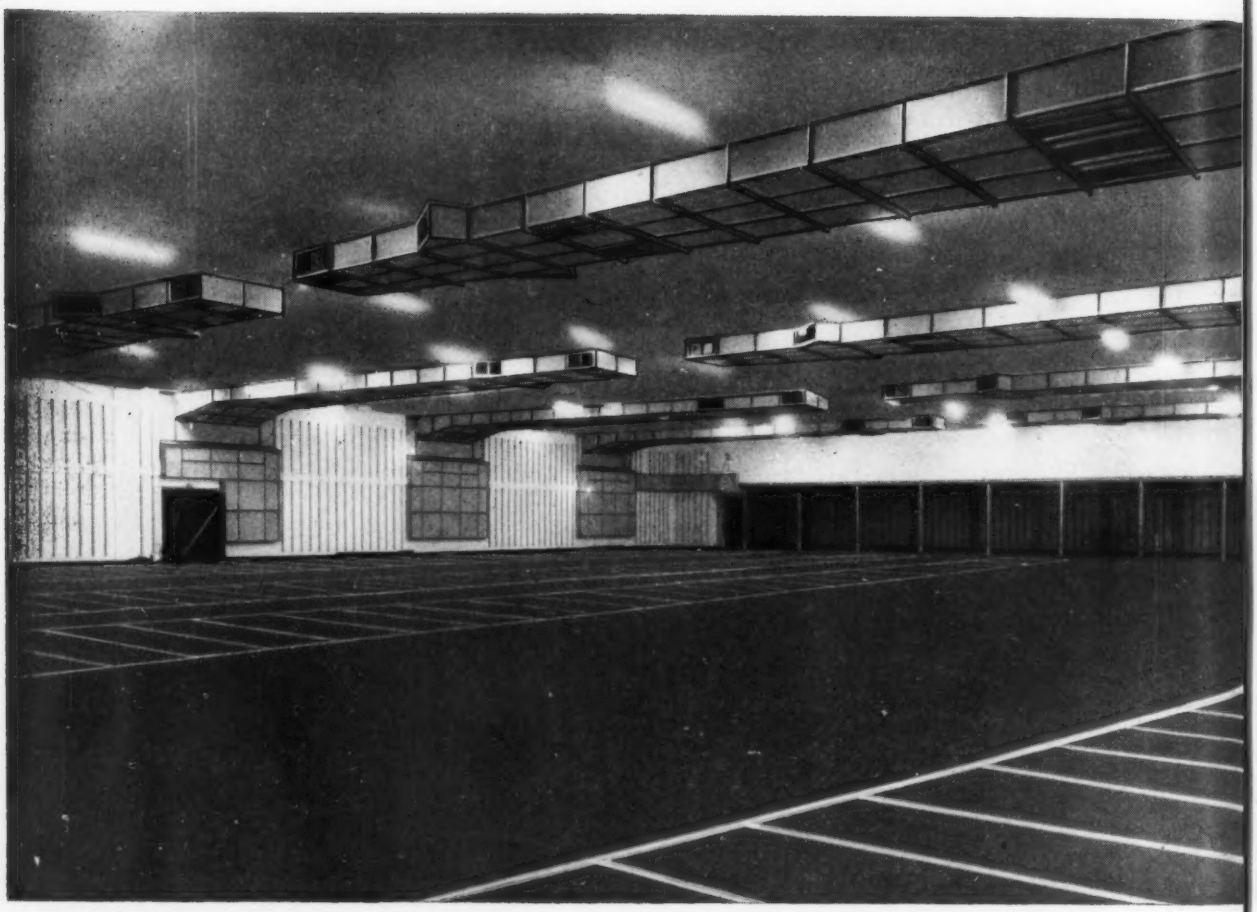


Fig. 1. (left) all-brick house. Fig. 2. (right) brick and timber house. White vertical and horizontal rods mark crucial dimensions.

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increment recognised and the 4 in. only occurs (as it does indeed occur quite often) when eight one-and-a-half inches combine to make a foot. The system of "preferred dimensions" on which the designs are based is illustrated in Figs. 3 and 5. All the numbers are inch dimensions, those without brackets in Fig. 3 being "preferred" and those bracketed being tolerated. The preferred numbers, as will be seen, do not provide an even range, rising by equal increments, but miss out quite a number of intermediate digits as the needs of building suggest. The chief value of missing out a digit is that it reduces the number of sizes which manufacturers must make (and suppliers stock). The operation of this system can perhaps be best understood by referring to the case of plasterboard. Plasterboard is made in two heights (7 ft. 6 in. and 8 ft. 0 in.) and in two widths 36 in. and 48 in. It was considered that these two widths do not give sufficient flexibility, so a third width of 45 in. was added. The value of this addition is that, halved, it gives 22½ in., a dimension which is useful in accommodating brick sizes. The objective with sheet and block materials is to reduce cutting to a minimum and to ensure that, when cutting cannot be avoided, the off-cut is of a usable dimension. The table below shows how this three width range (36, 45, 48) can be used to cover the 180 in. between the cross walls of the second house type assuming one intermediate partition of 1½ in., 3 in., 4½ in., and 6 in. It will be seen that in the first three cases this can be achieved by halving one or two sheets and in the fourth case by thirding one sheet.

		Partition			
48	22½	1½	36	36	36
48	24	3	24	48	36
45	22½	4½	36	36	36
36	30	6	15	45	48

Table showing how a 15 ft. (180 in.) run of wall can be covered by plasterboard made in three widths of 36 in., 45 in., and 48 in., allowing four different widths of partition.

A similar economy can be seen in the Station's adaptation of the block partition (see Fig. 5). Here flexibility is achieved not by adding to the range of blocks, but by grooving blocks so that they can be cut accurately and easily to make up all likely dimensions in traditional brick walling and always so as to give a usable off-cut.

The designs of the houses themselves are as "normal" as possible, since the object was not to design a house but to find out whether the system chosen could both supply the functional requirements of this kind of building and lead to tangible economies.

The Contract

The contract for the eight houses comprising the first instalment was let in the usual way for it was an essential part of the experiment that all the conditions affecting the work should be as normal as possible. There was no special supervision on the part of the architects and ordinary site labour was used.

THE NUMBERS IN THE TABLE ARE READ AS DIMENSIONS IN INCHES.

FIRST PREFERENCE NUMBERS 1½, 3, 6, 9....., ARE USED AS SIZES FOR COMPONENTS AND AS DIMENSIONS IN DESIGN.

THE BRACKETED NUMBERS ARE OF SECOND PREFERENCE. THEY ARE USED IN DESIGN, BUT ONLY IN SPECIAL CIRCUMSTANCES AS COMPONENT SIZES.

THE PREFERRED COMPONENT SIZES ARE CAPABLE OF ACHIEVING IN COMBINATION VERY MANY DIMENSIONS OTHER THAN THOSE IN THE TABLE. THESE HAVE BEEN TERMED INCREMENT DIMENSIONS.

A COMPONENT SIZE EXERCISING A STRONG DIMENSIONAL INFLUENCE MUST BE OF FIRST PREFERENCE.

THE BUILDING RESEARCH STATION NUMBER PATTERN ARRANGED IN COLUMNS; CONTAINING RESPECTIVELY MULTIPLES OF 1½, 3, 12 and 4 in.

1½			
	3		4
4½			
	6		8
7½			
	9		
(10½)		12	
13½			
	15		16
	18		20
(19½)			
	(21)		
22½		24	
	27		
	30		32
(31½)			
	(39)	36	40
40½			
	(42)		
	45	48	
			(52)
	54		
(58½)		60	
	(63)		64
67½		72	
	(78)		
	81	84	80
	90		
(94½)		96	
			(104)
	(117)	108	
		120	
121½			
	126		128
	135		
		144	
		(156)	160
	162		
(175½)		(168)	
		180	
	(189)	192	
(202½)			
			(208)
	(234)	216	
		240	

Fig. 3. The BRS preferred sizes table. Figures to the right of the vertical line are 4-in. modular sizes, which are neither foot nor brick dimensions.

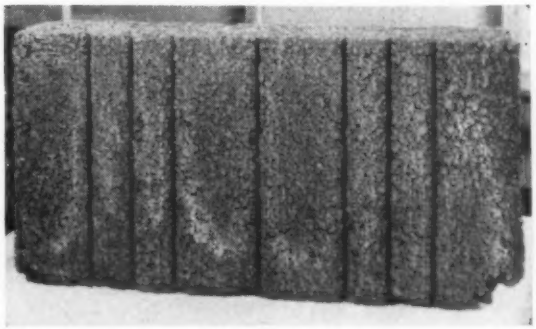


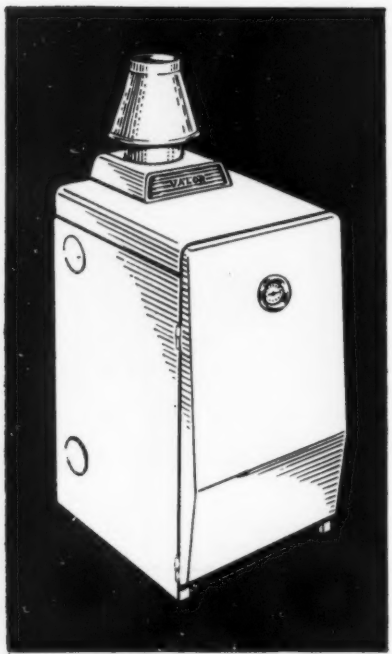
Fig. 4. Grooved partition block.

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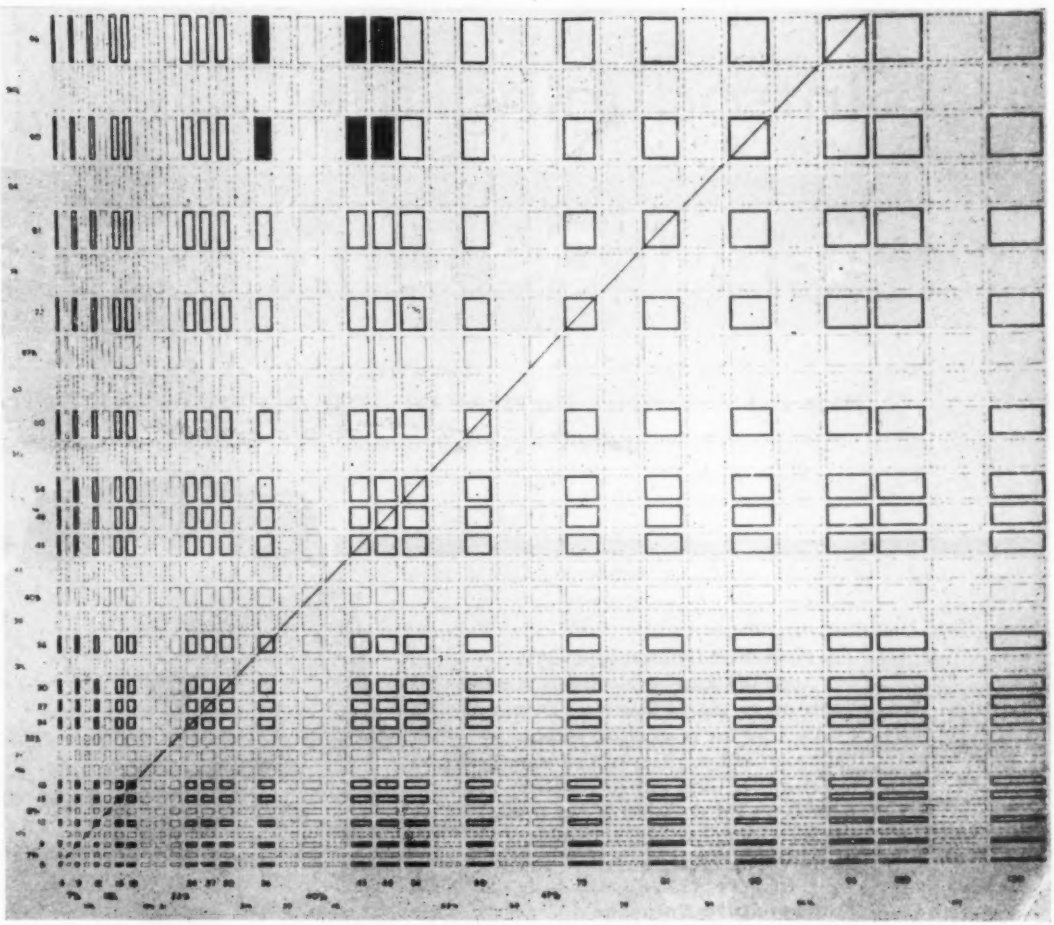


Fig. 5. The BRS preferred sizes. The areas in solid black represent the sizes of plasterboard referred to on p. 185.

Brickwork

Perhaps the most crucial aspect of the site work concerned the bricklayers, for the Station's approach to modular brickwork assumes that bricks will be laid to dimensions. This cuts across the bricklaying tradition in this country in which it is customary for bricklayers to make up to their dimensions by varying the joint thickness as they approach a bounding line. The bricklayers at Hatfield were accustomed to working to bonus rates and the first news that they were to work to dimensions filled them with such dismay that they refused. Subsequently, on having the job explained to them, they agreed to try it out and experience made them quite enthusiastic over the change. One condition of working to dimensions in brickwork is that all bricks must have a minus tolerance. The maximum long dimension of the brick was set, for commons at $8\frac{5}{8}$ in. and for stocks at $8\frac{3}{4}$ in. and gauges were made (see Fig. 6) to detect oversize bricks.

The setting out had to be done with particular care and the positions of all walls and partitions were marked on the site slab. The bricklayers had, therefore, merely to lay their bricks $\frac{3}{16}$ in. inside the lines marked for them. The vertical measures were kept by means of storey rods and by marking the courses on window and door frames.

One mistake arose on the all-brick terrace due to the insistence of the bricklayers on building the gable walls first. By starting the base course with a stretcher at both ends instead of a stretcher and a header, an unwanted line of headers occurred midway on the façade.

One gratifying result of working to dimensions was that following trades had their job made easy for them. Thus the floor and ceiling joists, which were pre-cut and thicknessed top and bottom, fitted exactly over the inner skin brickwork without projecting into the cavity. The same was true of the wood staircase. Nominally 3 ft. wide, its actual width was 2 ft. $11\frac{5}{8}$ in. This tolerance of $\frac{1}{8}$ in., added to two $\frac{3}{16}$ in. on the

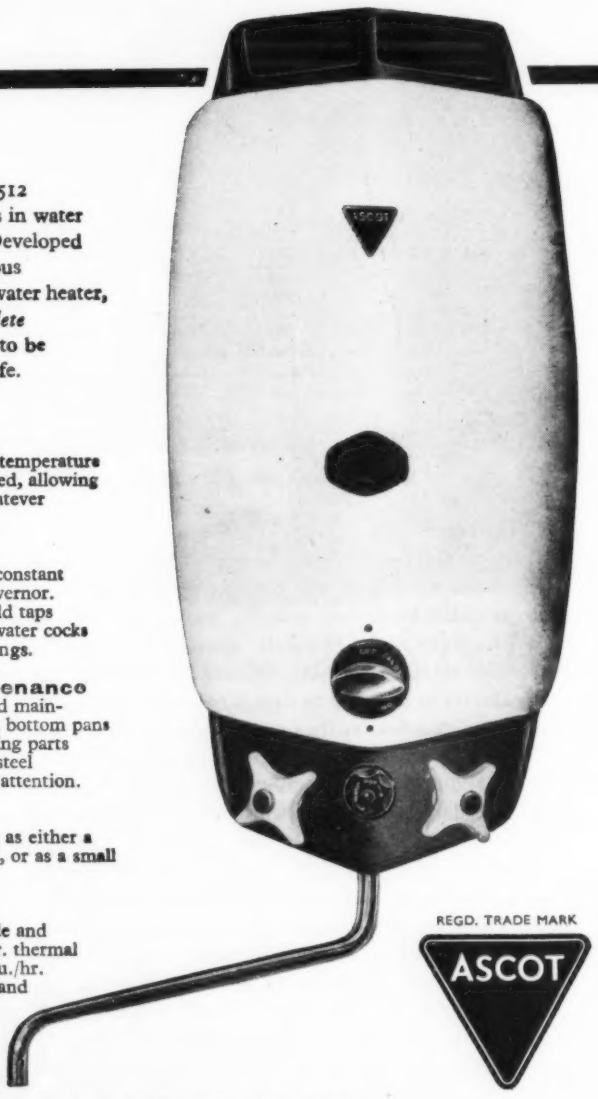


Fig. 6. Brick gauge.

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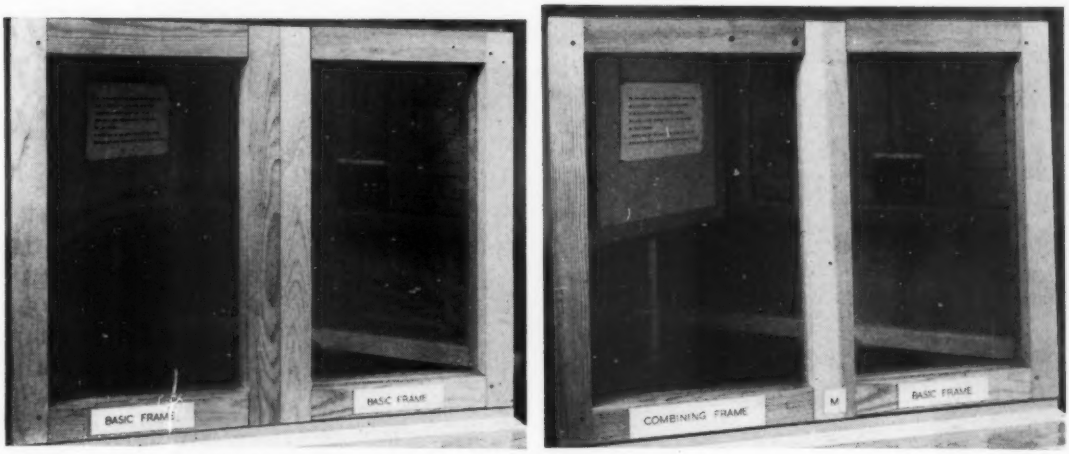


Fig. 7. Two-light window frames constructed from two basic frames (left) and from combining frames (right).

walls to make ¼ in. in all, was found to be enough in all cases.

Windows

One problem which arises in the design of windows is how to treat the mullion dividing equal lights. If this mullion is composed simply of the side members of the frames of each light (see Fig. 7, left), the result is usually clumsy and always uneconomic in material. If a single thickness of frame is used as a mullion the overall width of the window is reduced by the width of one frame an additional (and unnecessary) window dimension is created. The solution proposed is to use a "combining" frame (see Fig. 7, right). One light remains the same size: a mullion is inserted of a width one and a half times the thickness of the frame, and the extra half thickness is obtained by making the next light bigger. In the model illustrated, the disparity between the two lights is immediately apparent, but when the principle is translated to full size lights it is hardly possible to tell that one light is larger than the other (particularly if one has an opening light inserted).

Conclusion

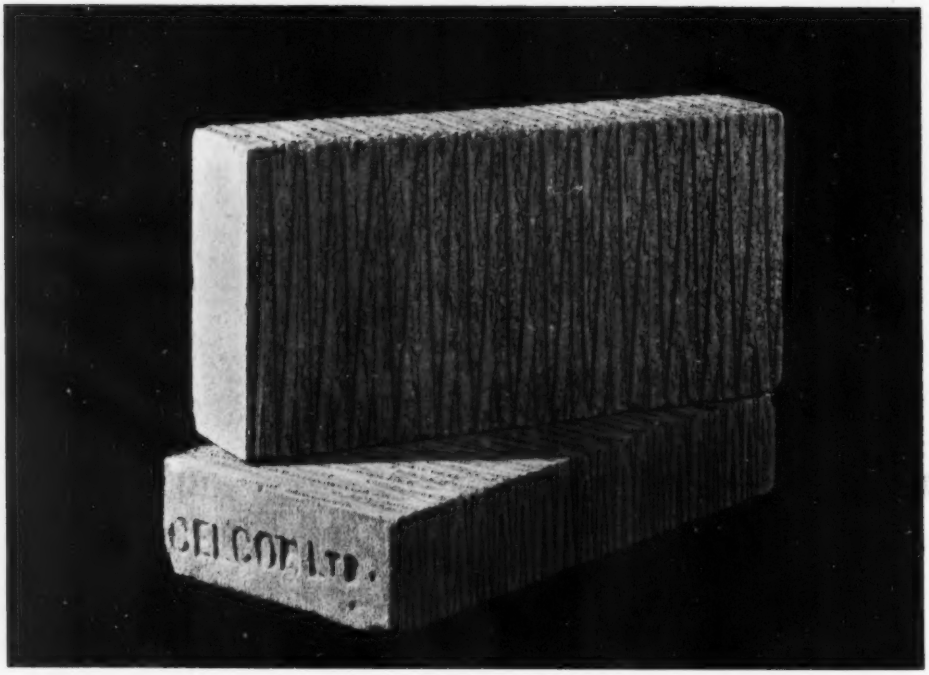
One general conclusion drawn by the Station is that the current British Standard practice of requiring a plus and minus tolerance must be varied to permit minus tolerances only. In practice it was found that nearly all manufactured components were oversize. Particularly was this true of such items as 6 in. by 6 in. quarry tiles, concrete blocks and flue liners. For items such as these, which have to be built in, the overall dimensions must be ⅛ in. less than the nominal dimension (*i.e.*, to allow at least $\frac{3}{16}$ in. on each face) and they must be specified as *plus* a tolerance of 0, *minus* a tolerance of ¼ in. This working to minus tolerances only does not seem to come easily to the manufacturers of traditional type components. A maker of flue liners, asked for an external dimension of $8\frac{5}{8}$ in. plus 0 minus ¼ in., cheerfully provided products measuring $9\frac{1}{4}$ in. and there were other examples.

There is little doubt that traditional building can be cheapened by the kind of co-ordination of sizes and of building-to-dimensions practised in this study, although it seems doubtful whether the margin of possible saving is very great. A more likely result (and it will be a welcome one) is a higher standard of finish. The procedure represents a tidying up of the traditional building process and a bettering of relations between trades which are both all to the good. Also the reforms advocated have the advantage of being relatively easy to bring about.

It is no disparagement of these tangible results to question whether the exercise will seem of great moment in the general context of the industrialisation of building and of the search for an international module.



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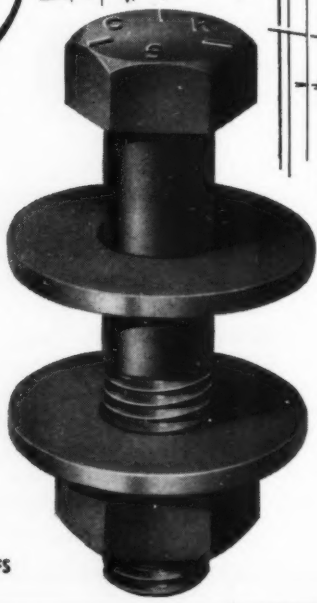
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BASA

Monthly supplement

The BASA Editors
The Building Centre
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A LEAD IN EDUCATION

The profession today is like the Roman mob without either a Mark Antony or a Coriolanus at its head—a lot of noise, some unpleasant smells and a lot of activity without much worth while having been achieved. It was in this country that the so-called Modern Movement began. Now, however, the driving principles behind it have been obscured, while architecture has come to mean such things as flat or near-flat roofs, picture frame windows, curtain walling, vertical boarding and acoustic tiles: the result of the hopeful aimless gyrations of the British architect looking for another gimmick-peg on which to hang his hat.

Nowhere is this lack of co-ordination and direction more pronounced than in the profession's attitude towards education. There has been much talk of improvements and of higher standards, but there has been no indication of how such improvements might be brought about, nor what form they might take.

The first step in educational reform must surely be to establish what the end-product must be. In other words we must be clear what an architect is and consequently what he must know. Once we have got clear where we are going it will then be possible to decide by what method we may best arrive at our destination. What are the best ways of training an architect? What methods are best suited to this particular type of training? Educationists could be consulted regarding this problem. The present curriculum could be reviewed so that time-wasting exercises, from which little is learnt, could be replaced by more beneficial programmes. Perhaps in this way much of that which we learn laboriously could be learnt more quickly and even more thoroughly. Just what are the vital parts of the student's course as it exists and what parts are simply dead wood that wants cutting away?

It seems to us that a drastic reappraisal of the educational system is needed. We would like to suggest that the lead in this matter might well be taken by the RIBA. We know that a start has been made. But to make what has gone before worth while we must have sweeping and positive action rather than vague promises. At the moment the RIBA is so hide-bound by the idea of maintaining a certain minimum academic standard that schools wishing to turn out a more-proficient graduate are hampered in making changes as they have to fulfil outdated RIBA requirements.

This then is, we think, a great opportunity for some positive action. We would like to see the RIBA supply a lead to the profession by following its pleas for higher standards by some efforts to achieve them. It is not enough to insist on cleverer students. Half a dozen "A" levels will not compensate for an inadequate architectural training.

STUDENT'S VIEW

BASA Conference

I have heard from Colin Taylor, BASA's secretary, that there have been an encouraging number of applications, both from students and the profession generally, to take part in the BASA Conference on Architectural Education. The object of the conference is to enable students, educationists and the profession together to find an educational formula which will answer present-day needs. The conference will take place at Balliol College, Oxford, on September 19, 20 and 21. Those wishing to attend should write to the Permanent Secretary at the Building Centre.

RIBA Prizes and Studentships, 1960-61

Copies of a pamphlet giving full information about the various RIBA Prizes and Studentships together with, where applicable, the detailed programmes for the competitions are obtainable from the Secretary, RIBA, price 3s. 6d., including postage.

Liverpool

Nigel Gough reports from Liverpool: "Dewi Prys Thomas, hereto Senior Lecturer at the Liverpool School of Architecture, has left to take a post as head of the Cardiff School of Architecture.

" I would like to say on behalf of the Liverpool Students that Mr. Thomas is one of the most entertaining personalities whom we have known. (In my opinion, just as the white-haired beer-drinker represents the good old days, Dewi Prys Thomas represents, rather than typifies, the Modern Man. He is smart, charming, sincere, and extremely accurate in his work and speech.) We wish him the best of luck and success in his new post."

Report on lecture given by Dr. J. Bronowski at the Nottingham, Derby and Lincoln Society of Architects.

Dr. Bronowski, scientist, art and literary critic, playwright and teacher and above all a man aware from his youth of life about him, expressed in simple terms that art was no mystery but a natural human activity. Man attempts through art to understand and master a difficulty in order to gain

greater freedom of action. Primitive man painted the animals he wished to overcome. This desire for liberation is seen in the French Gothic cathedrals; they are attempts to create the most magnificent buildings possible using the materials and techniques available. The Lever Building, and New York skyscrapers are another good illustration; a limited amount of land, and as much accommodation as possible, these were the problems; the skyscraper is man's mastery of these problems through the use of the most advanced techniques and materials. Above all, Bronowski is aware of the beauty of man, of man's creation, of man's re-creation of himself in his art, from these cave paintings to the Lever Building. All the resultant of working and creating amidst and out of difficulties, the need for economy in the Rockefeller Center resulting in the necessity of building up to the skies. This couldn't have been done a hundred years before! Amazing how man can re-create anew out of the needs at hand. He stimulated us with the analogy of a man from Mars, coming to Earth today, he'd be at home in a scientific laboratory yet put in a Gothic cathedral, the result of an endeavour in man to create his own image to the glory of God, he'd be lost in astonishment and ask, "Why all that waste space? What's it doing?"

The quiet, forceful Bronowski stated with authority, "If you don't know your building back to front, whether it's AC or DC, if you don't know what stresses are in the beams, etc.—then pack architecture in. Wren was a mathematician and a good one—not an architect!" Bronowski marvelled at a tree springing forth in great beauty from a little seed. Our best work should spring in similar manner from such simple beginnings. The Tudor pubs or cinema—"Ha, I love the Tudor period but I don't want to live in it! Take the Sydney Opera House, that couldn't have been built a hundred years ago, could never even have been conceived then, this is an expression of our age, so why try Tudor today?"

Concluding, he said that the artist and scientist must be one man. Real architectural beauty comes only when a building is expressive of the mastery of functional problems, and of materials and techniques.

All praise to Dr. Bronowski for a simple, stimulating reminder to the architect of his creative responsibility—a reminder much needed here in Nottingham.

STUDENT

LETTER

NOT SO SOCIO-

SIR: There is a viewpoint held by certain of your contributors and correspondents that would be alarming if the natural processes of time were not to kill it. This note is written with the aim of speeding up the process.

In the BASA section of THE ARCHITECTS' JOURNAL for June 9, 1960, your leader writer states categorically that the architect "*must* (my emphasis) equip himself . . . to deal with matters financial, functional and sociological." In the same issue correspondents Mitchell and Tempest, editors of *Accent*, published by Leeds students of art and architecture, believe that architects will not find their place in society "by becoming professional designers or some-such," and describe their magazine as concerning itself not only with design, but with "sociology, politics, planning and industry."

In case the message is still not through, it is simply this. That architecture deserves and requires a lifetime's devotion to its furtherance, that other matters need be covered only by a general, intelligent, adult approach and no more, that the public expects an architect to be able to design, that others are amply qualified and entitled to help him with social and economic implications, and that if he allows himself to be greatly distracted, he may as well surrender immediately all pretension to worth-while productive achievement *in architecture*.

JONAS LEHRMAN

Ottawa

Edinburgh Survey

ARCHITECTURAL EDUCATION IN EDINBURGH: Ferrie Wood

New Course

The pattern of architectural education constantly alters as the profession itself changes. In Edinburgh the decline in the apprenticeship system in offices has been reflected in the abandonment of the part-time course in which students attended the College for two days and three evenings per week for three years, before a final three years of full-time study. This superseded course was in its own time a development of a course of five years duration leading to the Intermediate. Students in these far-off days attended from 8 a.m. to 10 a.m., left for their offices and returned for lectures in the evening: only the fit survived.

In 1957 a new sandwich course was instituted consisting of two years' full-time study, followed by two years in an office, then a final two years of full time. During the office years a student keeps in touch with the school—the current "sandwich" is employed on a live project. However, it is also possible to spend a part of the time away from Edinburgh in an approved office in this country or abroad. Although relatively young, this course seems to offer many advantages and to be working well. It will probably become the dominant course, but it is not intended to give up the basic five years diploma course for those students to whom it might be more suitable.

New Methods

Another variation in the pattern of architectural education comes with the emphasis which is given to one or other aspect. Once the emphasis was on *what* should be taught, i.e., the content of the courses. Now that we are all heirs to the Banhams the great topic appears to be quality of education in the sense of entry standards, separation of grades, etc. Few people, however, appear to have given any thought to methods of teaching, in other words, *how* a subject might be taught.

Some consideration is being given to this in the Edinburgh School of Architecture.

The whole basis and nature of the traditional critique has been examined and its success and usefulness as a means of communication between staff and students questioned. A proper description of the experiment, which in any case is continuing, cannot be given here. However, it can be said that the general trend is towards a breakdown of the communication barriers between

staff and students so that the whole school can move towards the agreed goals of the course with as few tensions and as much efficiency as possible. To further this end, marking is disappearing except where administratively necessary. Many lecture courses are disappearing in favour of intensive tutorials, and the active participation of the Student Architects Group in organising discussions and lectures is always sought.

S.A.G.E.—Students' Architectural Group, Edinburgh

This organisation is maintained financially by the student body, the President, Secretary, Treasurer and committee members being elected each year.

The object of the group is (*a*) to provide lectures, exhibitions, site visits, discussion groups, etc.; (*b*) to act as a link between staff and students; (*c*) to act as an organising body for student activities; (d) this year it has taken upon itself a new duty, that of promoting interest and an interchange of ideas between the various schools within the College of Art.

This year S.A.G.E. has organised a series of 14 lectures, ranging from Industrial Architecture to Restoration Work, three of these being accompanied by an exhibition. A site visit is in the process of being arranged.

There are seven discussion groups meeting regularly, each formed around a student secretary, and a member of staff. The groups normally meet once each week to discuss subjects ranging from Architecture, Design, and Architectural Education to Politics and Religion.

Over a period of years many small and otherwise overlooked fields of income have been turned to profit. This money, along with that earned by the School through the live project already mentioned, is being used to buy a small bus. It is planned to use this on site visits, to supplement the fleet of private cars, motor bikes and scooters that normally leave the College on such occasions. We hope also that it may be used to transport sports teams to the various playing fields, and for helping students to move their possessions when changing accommodation. It is also planned to hire it to small groups (six and under) of students going abroad normally on scholarships, in summer.

Next session the series of lectures are aimed at widening the field of professional interest. For a long time the students of the College have felt that there is a tendency for the professions to become limited in their vision and for even the various schools within the College of Art to become separated. This coming series of lectures, therefore, will embrace as many fields outside architecture as possible ; there will of course be the normal lectures on subjects of direct concern to architects.

THE NEW DEGREE COURSE:

Andrzéi Malczewski

Since 1949 it has been possible in Edinburgh to take at the University an Honours degree in Architecture. At first this was achieved by following the complete five-year full-time course for the Diploma in Architecture at the Edinburgh College of Art, whilst attending prescribed lectures at the University to make the general discipline of the course comparable with that of other Honours degrees. This degree—M.A. with Honours in Architecture—was superseded because of difficulties in incorporating certain subjects taken in the university within the architectural curriculum, and therefore a new degree of Bachelor of Architecture with Honours was instituted—this being a specifically architectural degree for which students who have their Intermediate ARIBA Certificate, and have studied and passed their exams at another university or approved institution, take a two-year full-time course at the university under Professor R. H. Matthew. The first three years of the course therefore differ very little, if at all, from that of the usual approved school or university course up to Intermediate standard, the specifically university slant beginning with full-time attendance of the course in the fourth year.

Curriculum and Character

The subjects in the curriculum of this degree fall under the usual general categories of:

(i) Architectural Design
(ii) Structural Design
(iii) Building Construction and Science.

But there is also a choice of three subjects:

(*a*) Civic Design
(*b*) Landscape Architecture
(*c*) History and Theory of Architecture,

each of which allows for some specialisation in a limited way. On the other hand, since all subjects are taught right through the fourth and fifth years, less emphasis is put on one major thesis subject than in many other schools. It should be stressed at this point that the degree is aimed at producing architects in the first place and not academic specialists. Since this is an Honours degree the number of students is, and is expected to be kept, fairly small and this has obviously influenced the method of teaching. Staff and students work in close association, lectures often taking the form of informal round-the-table meetings, while in the studio attention is given to encouraging individual development rather than attempting to impose a predetermined school of thought. Working within this liberal climate, the student is, however, restrained from undisciplined originality by repeated emphasis on the functional basis of modern architecture, both through the type of subjects given and in the discussion of the designs at the drawing board and later stages. This practical aspect is supplemented by participation in live projects (e.g. a housing scheme on which building operations have just begun), regular symposia, taking two or three days, on particular aspects of Building Construction and Science, and contact (rather spasmodic so far) with the University's Housing Research Team. Of the additional subjects taken in the fourth and fifth years—namely Civic Design, Landscape Architecture and History and Theory of Architecture—the first two are more or less self-explanatory. The third is designed to develop the student to appreciate the basic problems in philosophy and aesthetics, leading to a study of the theory of architecture at the present day.

The University is also concerned with post-graduate work and gives to its own B.Arch. graduates an additional Master's degree on completion of one further year's research; in the case of graduates from other universities or approved institutions wishing to take this degree, the specified period of research is two years. This post-graduate programme, added to the large-scale housing research project at present operating under the auspices of the University, has made itself felt in the curriculum of the undergraduate course where considerable emphasis is given to these possibilities and where the limited specialisation achieved in the three subjects previously mentioned might be considered as an introduction to subsequent research work in that particular or any alternative field.

Students taking the University degree course, although separated from the architectural and art students of the Edinburgh College of Art, have ample opportunity to maintain contact with them, and this is, in fact, established. They benefit from and contribute to the various student activities, full advantage being taken of such organisations as S.A.G.E., or the informal joint discussion groups which take place in the homes of lecturers both in the College and in the University.



"Edinburgh is still recognisable as a beautiful city "

SUBTOPIA ATTACK: C. Macintosh and Adrian Stungo

Any sensible person who lives in Edinburgh has ample opportunity to observe the fact that the vast bulk of buildings erected after the time of the New Town exist to the detriment of rather than as an asset to the city.

It can truthfully be said that this is the case in most of the cities of Britain: is this due to the unenlightenment of the British people? Are there few architects and designers in Britain of genius and sensitivity?

It is cold comfort to a lover of Edinburgh to say that our affliction is widespread. Let us therefore concentrate first on the specific case of Edinburgh and study the problem on our own door step. What is the situation confronting the architect of integrity here and now?

An architect often seizes first upon the solution of setting an example by his individual contribution, in the form of well-designed houses. If he is fortunate, a client approaches him asking for a design. Then he meets the first and often final barrier. Sites are unobtainable. Every buildable ditch, yard and field for miles around is owned by a spec. builder. The builders are, however, quite amenable to fueing a plot provided that their firm are the contractors for the job, in which case they will probably wish to modify the design, being unwilling to accommodate new ideas; also they can price as high as they like as there will be no competitive tendering; and provided that the client is prepared to have his dream house dropped into a desert of suburban bungalows.

If, however, these difficulties are surmounted and the project proceeds, it is sent to the Dean of Guild Court and the Planning Committee for planning approval. It is most probable that these highly respectable institutions will find some excuse to repress any idea with unseemly freshness and the sparkle of youth. One such typical ground for official disapproval is that "the proposed scheme is not in keeping with the existing buildings."

What precisely "in keeping" means is dubious, but it can be inferred from buildings receiving approval that it consists of the thinnest camouflage of sham stone or applied Tudor timbering. "The existing" may in fact be composed of buildings differing by 300 years of building experience; but no matter, it is "existing."

Against these heavy odds the architect is forced to review his plans of crusade and try to analyse the situation.

Sites are virtually unobtainable he has discovered. The spec. builders who exploit the citizen's needs occupy positions of privilege in the town and are held in honour and high esteem.

The town council, the protecting apparatus of the city, is controlled by individuals who have demonstrated their callousness towards the public interest.

The decisions of the Dean of Guild Court and the Planning Committee have the unfortunate effect of ensuring a safe market for the suburban bungalow and discouraging progress in design and construction.



Spec. houses from Mactaggart and Mickel's handouts.



". . . though the ugly cancer is more extensive than most people realise."

While the slums of the city crumble about the heads of the inhabitants, the alternative offered them is the isolation of the suburban desert.

The argument is often voiced that because spec. bungalows are bought as fast as they are built and because the majority of people are plainly not hypersensitive to their surroundings, that " this is the will of the people," " they deserve no better."

This is an unfair argument. No one claims that the criminal who can choose between suicide and life imprisonment has a completely free choice. What is pleasant or unpleasant is always comparative.

Regarding the alleged insensitivity of " the admass," it is not only what we are consciously aware of which affects us; indeed psychologists tell us that most of our deepest impressions are entirely subconscious. It is therefore a great responsibility on those who consciously mould the environment of others' lives, to provide the right influence and stimuli.

Consider again the New Town of Edinburgh. It is hard to understand that the grandfathers of " the admass " which now accepts the suburban bungalow as a status symbol, saw the building of Charlotte Square, and lived the life of corresponding elegance and culture; admittedly for the privileged few, but who did not design or live in these buildings, built them: moulded the fine stone cornices and plaster ceilings. I do not say this in order that we should mourn the past and escape the present in illusion, but that we may take courage in the knowledge that the Scots are not biologically insensitive and oafish, nor drab and unimaginative.

There is a growing public awareness of the way in which our affairs are being mishandled. Other possibilities for freedom are dimly perceived. There are doubts of the inescapable necessity for this life in a cul-de-sac.

It is not sufficient to condemn the existing unless one can answer the retort *What is your alternative?*

Any evil can and must be endured if there is no alternative, but this is not the case. This is one of the reasons why student architects, designers and engineers are in a suitable position to provide a mouthpiece for public resentment.

We are a fortunate minority who have been granted the benefits of education. It is not only a possibility that we should give leadership and guidance; we have an obligation to do so. Edinburgh is still recognisable as a beautiful city though the ugly cancer is more extensive than most people, whose activities take them over a limited area of Edinburgh, realise.

Therefore, let us cease to ring our hands and sigh at the injustice of the Almighty. This is our town, it is as we make it, by our activity or our inactivity! *Subtopia Attack* is a new society. The aim of the society is to promote progress in design and town planning with particular respect to estate housing developments. (This is doubtless the aim of all local authorities; unfortunately it is rarely made apparent.)



Proposed plan of attack

1. Inaugurate a study group to collect information on spec. housing. This study group shall produce a report and form a library of information as a basis for constructive work.
2. Introduce College housing projects for sites scheduled for spec. building. Seek the co-operation of the builder at this early stage and request additional information. Present the best schemes to the builder.
3. Invite spec. builders to give talks in College on builder-designed houses and/or to sit on a Brains Trust.
4. Introduce College projects for Festival decorations and present the best schemes to the town council as concrete proposals.
5. Introduce projects for more advanced students for the replanning of controversial areas of Edinburgh, and present the best schemes to the town council as concrete proposals.
6. Investigate all problems of encroachment upon public amenity in the name of necessity or progress, e.g., overhead wires, ugly lamp-posts, mutilation of trees.

Exhibition

Subtopia Attack held an exhibition in the Edinburgh College of Art for two weeks at the end of May. The Committee felt the urgent need for this exhibition following the granting of planning approval to Mactaggart and Mickel (a speculative building firm) for the erection of 200 houses on a site overlooking the Firth of Forth.

The committee immediately began to collect examples of both good and bad housing. I would like here to express our gratitude to Span Developments Ltd., Basil Spence and Partners and Chamberlin, Powell and Bon, architects, for their prompt and generous response to our appeal for help. Typical examples of what was in fact to be built were easily found. We quickly took photographs and enlarged them. Mactaggart and Mickel were most obliging in their supply of material.

The whole exhibition took the form of unassessed comparisons, the main object being to point out that alternative ways of housing and living were possible and practicable; and to present the situation as one of free choice.

The first exhibit consisted of two large photostats of specific typical examples of a Span House and a Mactaggart and Mickel house, both obtainable for £4,500. On the next screen were displayed diverse examples of spec. housing beside diverse examples of good housing. No comment was made.

This was followed by the aerial photograph shown on p. 193 illustrating the overall pattern of sterility in a spec. housing scheme. Beside this were placed a drawing of the Radburn road system and a student scheme for a spec. housing development. Lastly, we showed maps of Edinburgh illustrating the areas built and the sites due for desecration, and the newspaper cutting announcing the granting of planning permission.

Although there has recently been a good deal of talk about rising costs of land and the Green Belts—talk which resulted in a statement in the House of Commons by the Minister of Housing and Local Government—Subtopia Attack is primarily concerned with the development of land once it has been purchased. We are, none the less, very concerned about the increasing shortag of land and, as new building obvious decreases the available amount of build able land, the public has a right t expect that development is guided b intelligent and enlightened planning.

Contemporary architecture is not mer ly a question of flat roofs and unde floor heating; it goes to the very bas ideas underlying the housing of hum society. These ideas have been studie by eminent architects and planners— contrast to the majority of Edinburgh spec. builders who employ architec of execrable ability—and the researches have been turned int concrete reality. Subtopia Attack doe not therefore aspire to a Utopian visio but has tangible evidence of what i regards as work commensurate wit twentieth-century living.

Why then do we not have mos enlightened development? The answe is threefold. Firstly builders are ultra conservative and almost medieval i their approach to new techniques Secondly, the typical separate houses an "semis" represent a small initia investment, they can be built a few at a time and sold off, and this shoe string budget approach ensures maxi mum profits for the firms. Thirdly, the builders believe that they are giving the public what it wants; this is absurd because the public can only have wha is there and as in Edinburgh there i nothing but shoddy third rate spec building the public has no choice.

Not only does this exhibition show what can be done now to solve materia difficulties, it also shows how this ca result in a thoroughly civilised environ ment.

Unless something is done immediately it will soon be too late.

Edinburgh Corporation must suspend all development and call in an architect of national standing to review all proposed schemes. All those that do not come up to a stated standard of planning and design must be rejected. This is *not* impossible: it is a radical answer to counter an extreme situbtion.

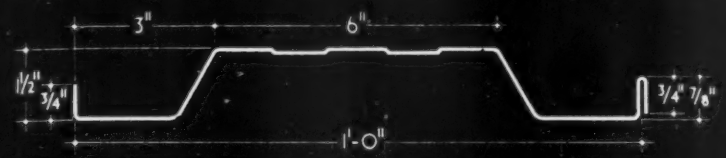
For further information regarding *Subtopia Attack* contact Adrian Stungo, 102 Thirlestane Road, Edinburgh 9. Adrian Stungo is the Honorary Secretary of Subtopia Attack.



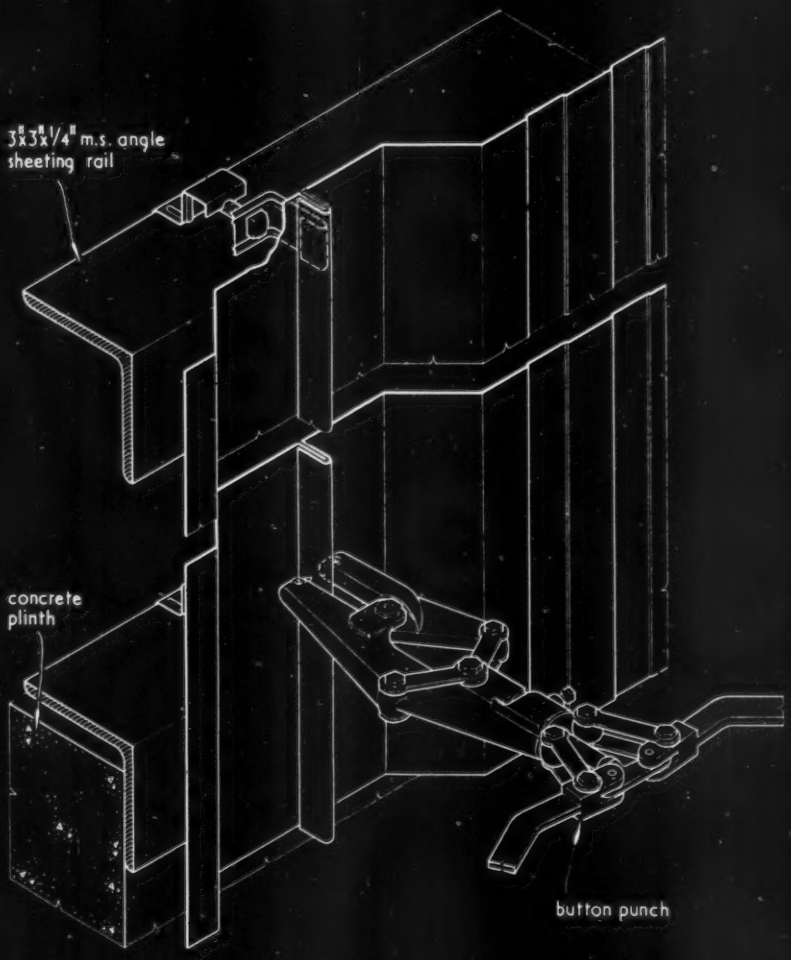
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SHEET MATERIALS | METAL | APPLICATIONS

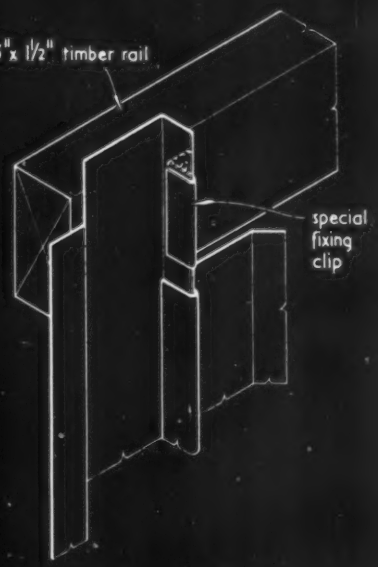
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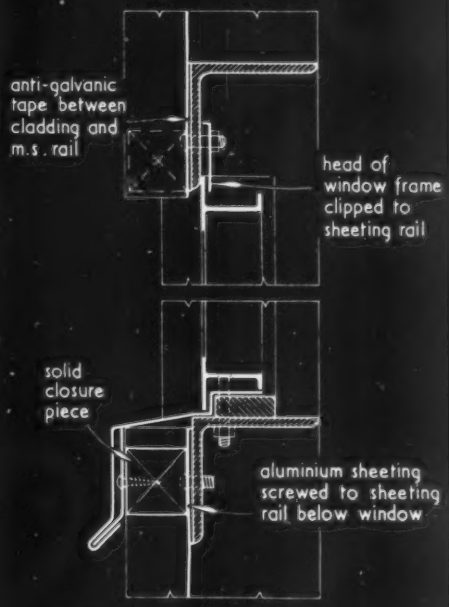
SECTION SHOWING PROFILE OF SHEET.



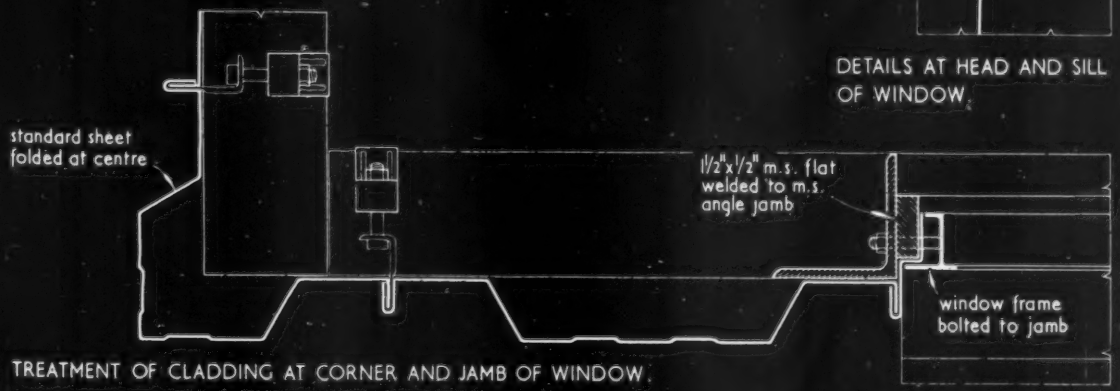
DETAIL OF FIXING TO ANGLE RAILS.



DETAIL OF FIXING TO TIMBER RAIL.



DETAILS AT HEAD AND SILL OF WINDOW.



TREATMENT OF CLADDING AT CORNER AND JAMB OF WINDOW.

·RIGIDAL SEAMWALL· ALUMINIUM-ALLOY CLADDING. Manufacturer: The British Aluminium Company Limited.

15.Q1. ·RIGIDAL SEAMWALL· ALUMINIUM-ALLOY CLADDING

This Sheet, the first of two dealing with Rigidal Seamwall aluminium-alloy cladding, describes single skin construction. Double skin construction is dealt with on Sheet 15.Q2.

General

Although conventional sheet fixing methods may be used, this Sheet gives details of a system of concealed fixing whereby the sheets are not pierced. The cladding is not intended for roof coverings as the seam joint in the trough, although satisfactory for walls, is not suitable for use on sloping surfaces. It may be used in conjunction with standard insulating materials.

Material

The sheets are made from NS3 alloy to B.S.1470 (BA.60).

Sizes

The system is based on a 1-ft. module. Sheets are available in 20 s.w.g. and in lengths up to 40 ft. 0 in. Sheets in thicker material or longer lengths are available to order. Where end lapping is necessary special sheets are available with joggled ends to give a smooth joint with a 4-in. overlap. The weight of the sheets is 0·682 lb. per sq. ft., the moment of inertia (in.^{4}) is 0·23 and the section modulus (in.^{3}) 0·30.

Design and Construction

The profile of the sheets is as shown in the drawing on the upper face of the Sheet. The sheets may be fixed to angle or channel sheeting rails or to timber battens. Where concealed fixing is required special clips are supplied which fit over the single upstand at one side of the sheet and are secured to the sheeting rail. The clips are supplied with or without bolts, as required. The length of the bolts used depends on the size of the sheeting rail.

The recommended spacing for sheeting rails in accordance with B.S. Code of Practice CP3, Chapter V, is 6 ft. 6 in. for 20 s.w.g. sheets.

Edges of adjacent sheets fit together to form a seam joint. The overcloak of the joint is supplied ready caulked, unless otherwise specified. The joints are completed by a series of button punch dimples which fix the thicknesses of metal together. They should be formed at the fixing clips and at 2 ft. 0 in. centres between. To avoid resetting the punch to accommodate the extra thicknesses at the clip, dimples may be formed 1 in. above and below the clip. It is important that the "nose" of the punch should point in the direction of laying and that it is correctly adjusted, otherwise there is a risk of perforating the seams.

Corner flashings are available formed from standard sheets, as shown on the lower face of the Sheet, in lengths up to 12 ft. 0 in. with joggled ends to give smooth joints.

Where the wall length is such that an exact fit cannot be obtained using standard sheets, wider or narrower filler sheets may be formed on the site using a special splice section available from the manufacturer.

Finish

The sheets are available plain or with embossed stucco finish. Lengths up to 40 ft. 0 in. of either type can be supplied with Alocrom 100 surface treatment to special order.

Further Information

The manufacturer maintains a technical advisory department available to answer questions dealing with this subject.

Compiled from information supplied by:

The British Aluminium Company Limited

Head Office: Norfolk House, St. James's Square, London, S.W.1.
Telephone: Whitehall 7868
Telegrams: Britalumin, London. Telex.

Regional Sales Offices

Southern: 403, Bristol Road, The Greenford Industrial Estate, Greenford, Middlesex. Telephone: Waxlow 2388. (District Offices: Bristol, Southampton).

Midland: 109, Hagley Road, Edgbaston, Birmingham, 16. Telephone: Edgbaston 4521. (District Office: Cardiff)

Northern: Woolwich House, 59-61, Mosley Street, Manchester, 2. Telephone: Central 2331. (District Offices: Leeds, Newcastle)

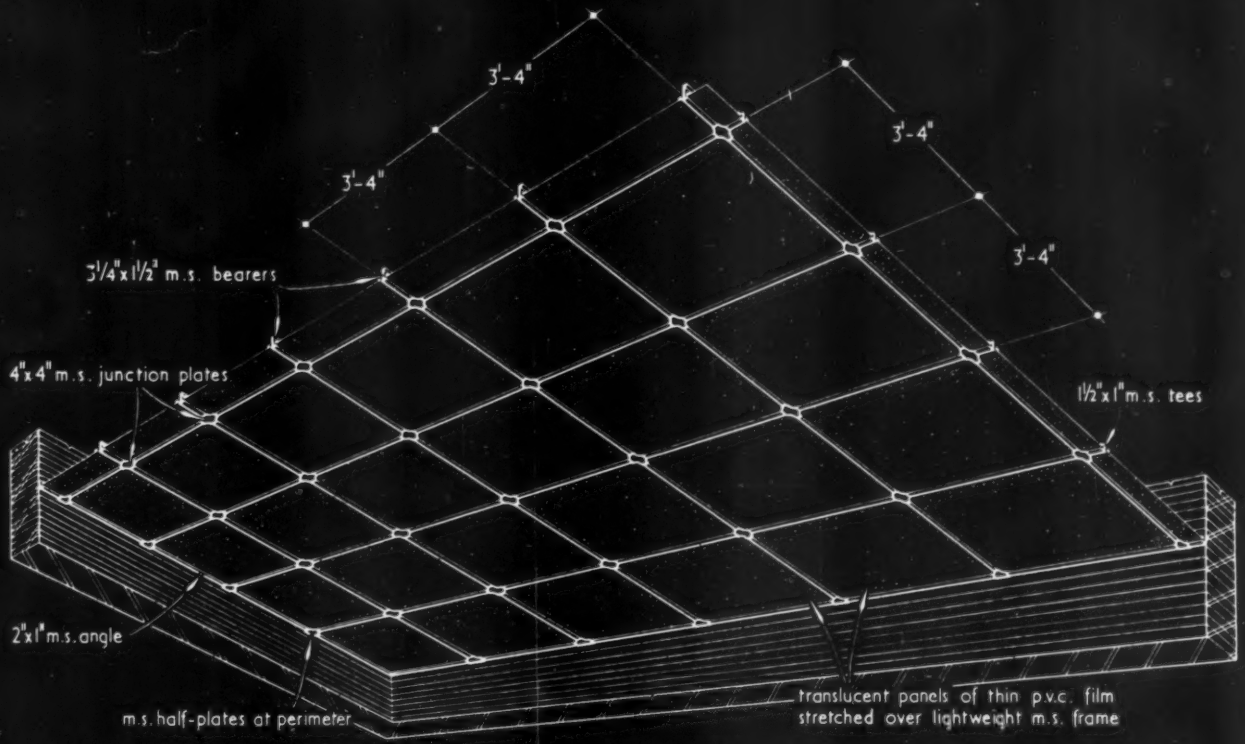
Scottish: 113, West Regent Street, Glasgow, C.2. Telephone: City 5426.

Northern Ireland District Sales Office: 12, Upper Library Street, Belfast.

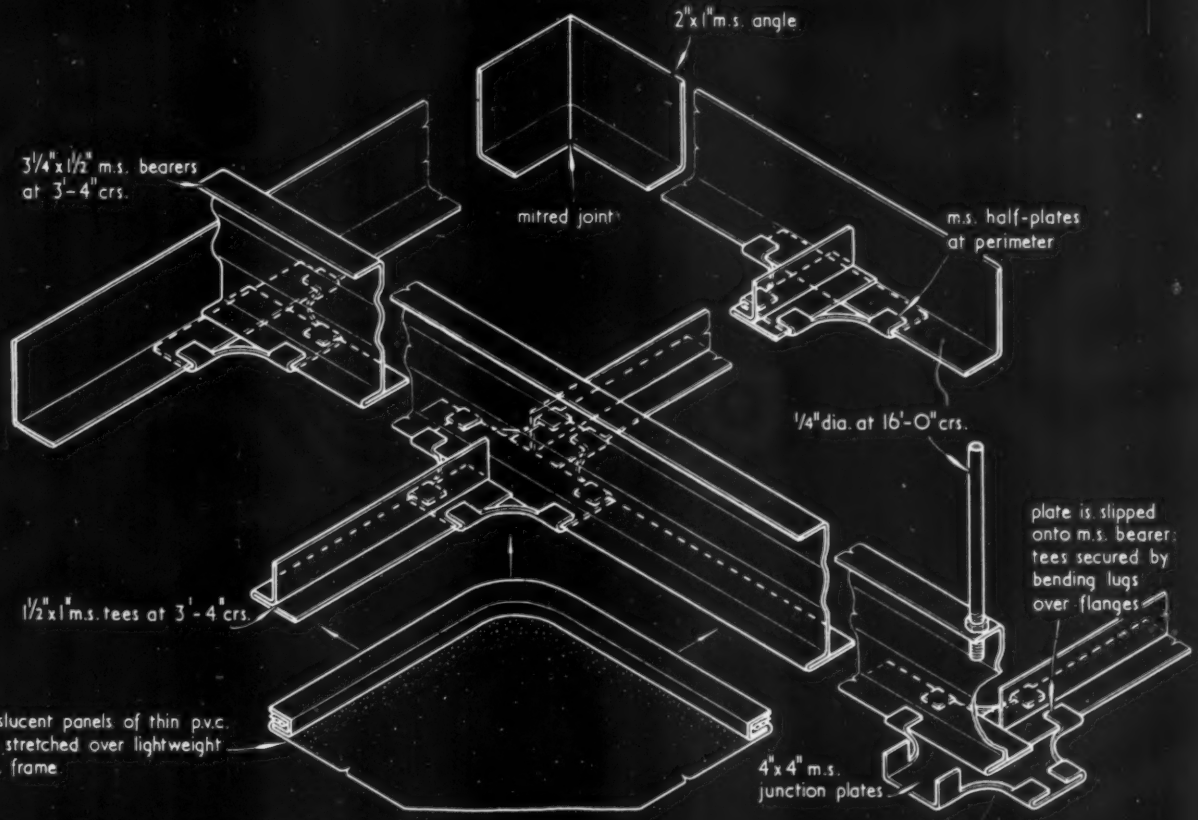
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CEILINGS | MISCELLANEOUS | FLEXIBLE P.V.C. AND STEEL 22.Z1

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VIEW OF UNDERSIDE OF CEILING



DETAIL OF ASSEMBLY OF COMPONENT PARTS.

·ISORA· ILLUMINATED CEILINGS. Manufacturer: SFIM (Great Britain) Ltd.

22.Z1. ·ISORA· ILLUMINATED CEILINGS

This Sheet describes Isora translucent suspended ceilings, which can be used for diffusing artificial or natural light, for sealing off large roof spaces to reduce heating costs and also to protect industrial equipment or processes from dust. The diffusing material is thin p.v.c. film stretched over a light metal channel frame. The applications of the ceiling range from showroom lighting to industrial insulation projects.

Material and Construction

The system is simple, consisting essentially of only five components. All metalwork is of 17 s.w.g. hot dip galvanised mild steel. The whole ceiling is completely demountable.

Main Bearers: These are 3¼ in. deep by 1½ in. wide m.s. sections which carry the weight of the ceiling and can span up to 16 ft. 0 in. They are normally suspended at this interval by ¼-in. m.s. rods or by straps.

Cross Tees: 1 in. deep by 1½ in. wide m.s. tees form the cross noggins of the supporting grid for the panels.
Wall angle: A 2 in. by 1 in. m.s. angle supports the grid at the walls and is normally mitred at corners.

Junction plates: 4 in. by 4 in. cruciform junction plates are used to secure the grid at intersections as shown in the drawing on the lower face of the Sheet. The plates are slipped onto the main bearers to their correct position; the cross tees are then dropped onto the plates and the lugs clamped down tightly by means of a special clamping tool. Half-plates are available for use where main bearers and cross tees meet the wall angles at the perimeter of the ceiling.

Panels: Each panel consists of a m.s. channel frame over which is stretched a p.v.c. film, 0·006 in. thick, secured by means of a tightly compressed sash cord. The p.v.c. film is specially formulated and complies fully with B.S. 1763: 1956 (type IF sheetings); it is extremely tough and flexible and will not sag. Standard panels are made to suit a 3 ft. 4 in. module, but special panels can be made to almost any size or shape. When the grid is installed, the panels are placed in position by passing them up through the grid from below, turning them slightly, and allowing them to drop back on the flanges of the framing members. If desired, the panels can be secured to the framework by special spring clips.

Weight

The complete ceiling weighs approximately 14½ oz. per sq. ft.

Fire Resistance

The p.v.c. film is classed as " self-extinguishing " and conforms both with the flammability test in B.S. 1763: 1956 and with the Thermal Insulation (Industrial Buildings) Act, 1957, in that it will not enhance the risk of fires breaking out or spreading in the building. Fire sprinklers can be incorporated in a ceiling design without difficulty.

Thermal Insulation

By sealing off large roof spaces, the installation of Isora ceilings can considerably reduce fuel costs without losing the benefit of natural lighting. The thermal resistance (R) of the ceiling is between 1·6 and 1·1 and the coefficient of thermal transmittance (U) between 0·6 and 0·9.

Colours and Finish

P.v.c. film: The p.v.c. film is currently available in the following colours, the percentage of light transmitted by each being given in brackets:

daylight blue (78%)	rose pink (51%)
frosted white (88%)	golden yellow (62%)
daylight blue embossed (75%)	powder blue (49%)
apple green (53%)	black (nil)

In addition, an almost unlimited range of transparent, translucent and opaque (including printed) p.v.c. film can be obtained, although these would not normally be to the manufacturer's special formulation.

Framework: The framework of the ceiling may be painted to any colour specified, although pale blue and white are standard.

Lighting

The thin p.v.c. film used for the panels gives high light transmission coupled with low surface brightness and glare is, therefore, reduced to a minimum. Artificial lighting can either be installed above, flush with or below the ceiling. Special lighting equipment has been developed for the system by AEI Lamp and Lighting Company Limited, the manufacturer's appointed lighting consultants. Coefficients of utilisation are obtainable from the manufacturer.

Pressurised Rooms

For standards rooms, electronic assembly shops and any other situation where clean working conditions are essential, Isora ceilings can be made airtight by the incorporation of pressure seals between the panels and the supporting framework. Full details can be obtained from the manufacturer.

Maintenance

Panels are easily removed for cleaning: sponging with a mild solution of soap or detergent is all that is necessary. The manufacturer operates a cleaning and maintenance service, at present in the London area only.

Price Range

The average price for a completely installed Isora ceiling is 6s. 6d. per sq. ft.; large installations work out at considerably less than this.

Further Information

All installations are normally undertaken by the manufacturer or his appointed agents, but in certain circumstances quotations for materials only can be given.

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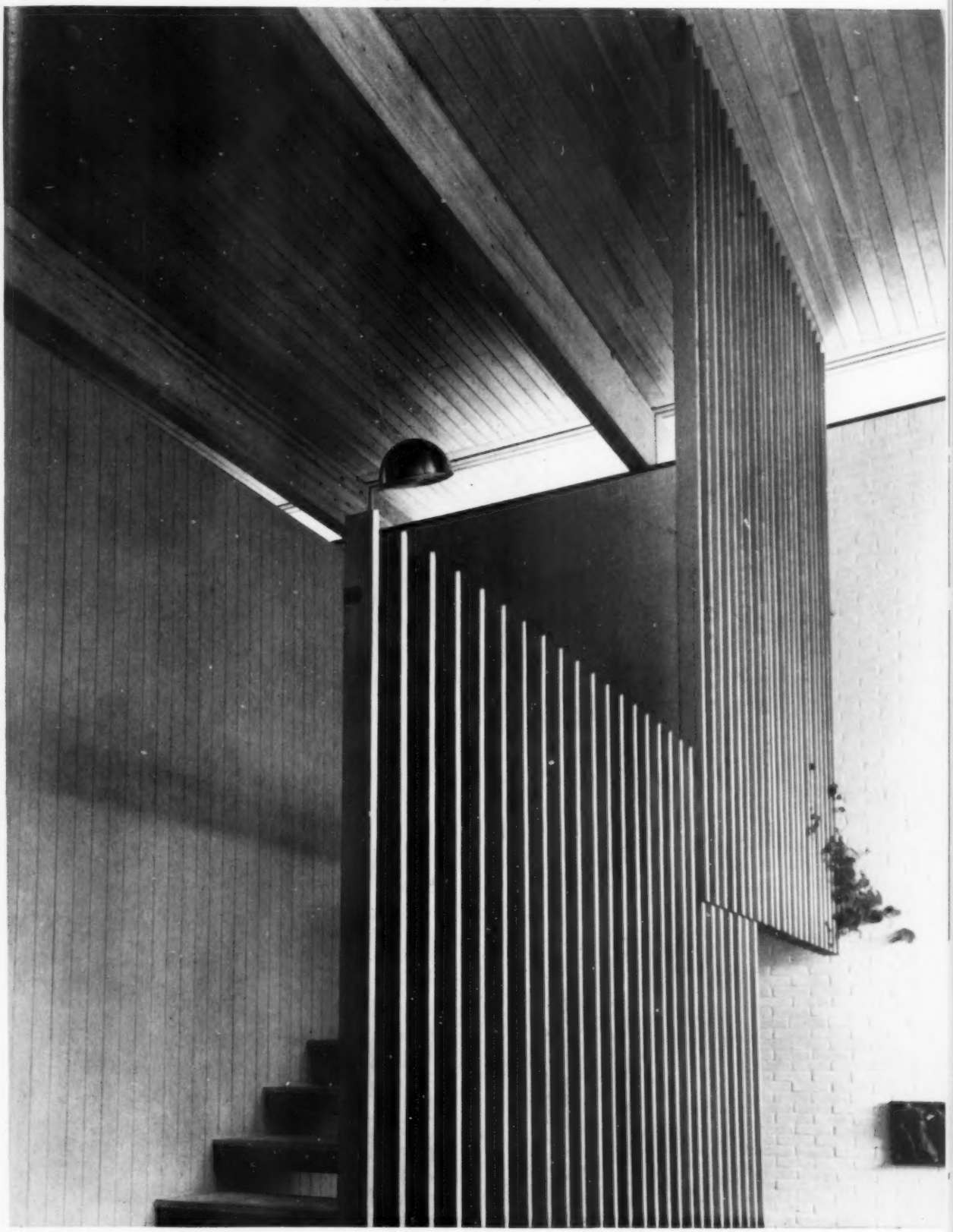
Isora Illuminating Ceilings
(A Division of the King Group of Companies at Slough)
Address: 216-221, Bedford Avenue, Slough, Bucks.
Telephone: Slough 22228.

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working detail

SCREEN: STAIRCASE, MUSEUM IN COPENHAGEN

Jørgen Bo and Vilhelm Wohlert, architects (material supplied by George Kew)

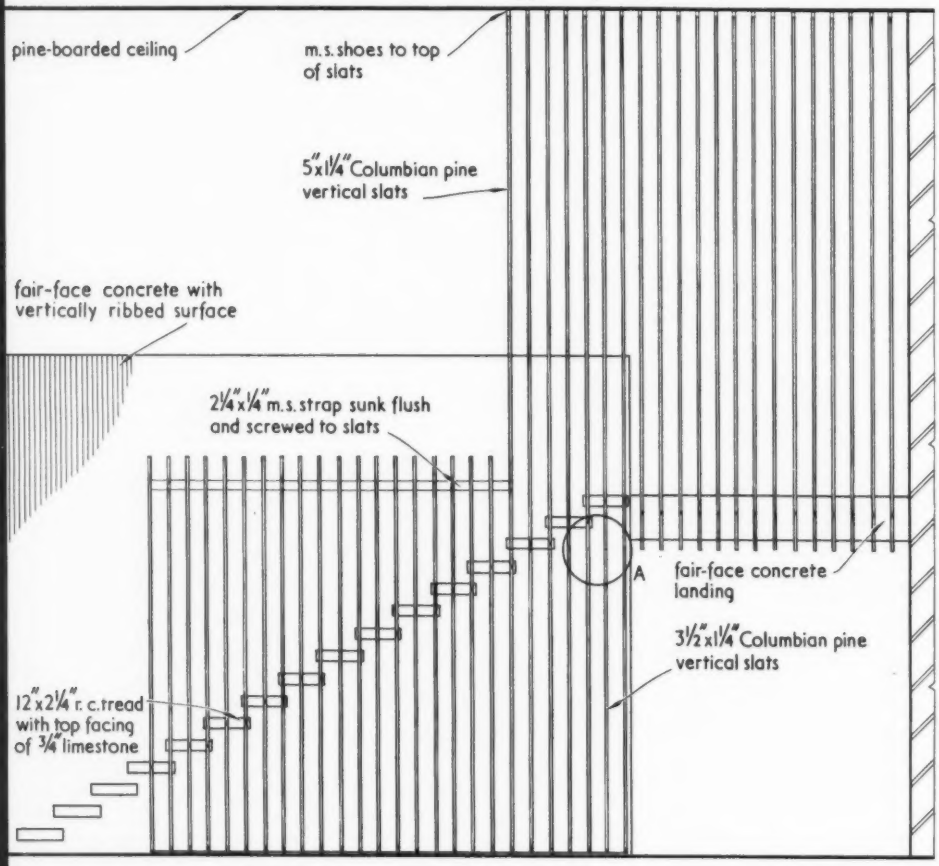


Although it provides a sufficient physical barrier, the main purpose of this screen is to mask the diagonal line of the staircase, always a source of visual unrest.

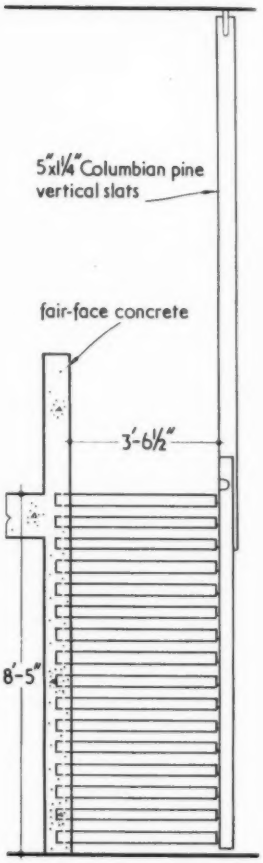
working detail

SCREEN: STAIRCASE, MUSEUM IN COPENHAGEN

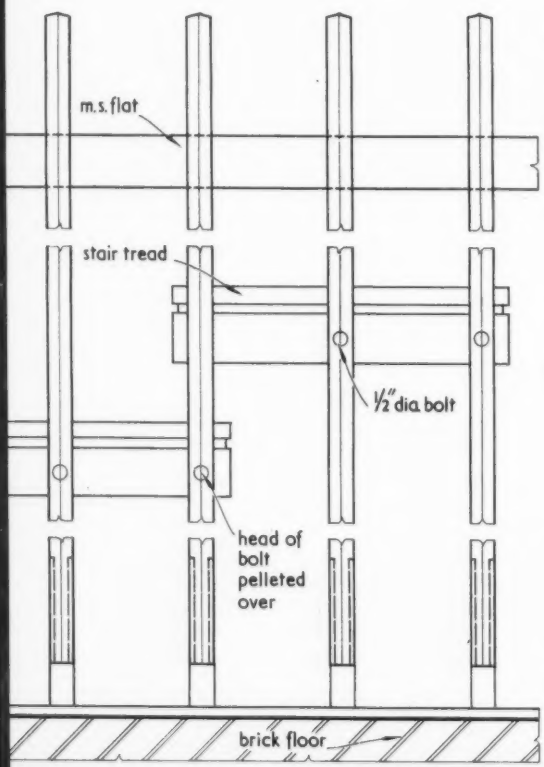
Jørgen Bo and Vilhelm Wohlert, architects (material supplied by George Kew)



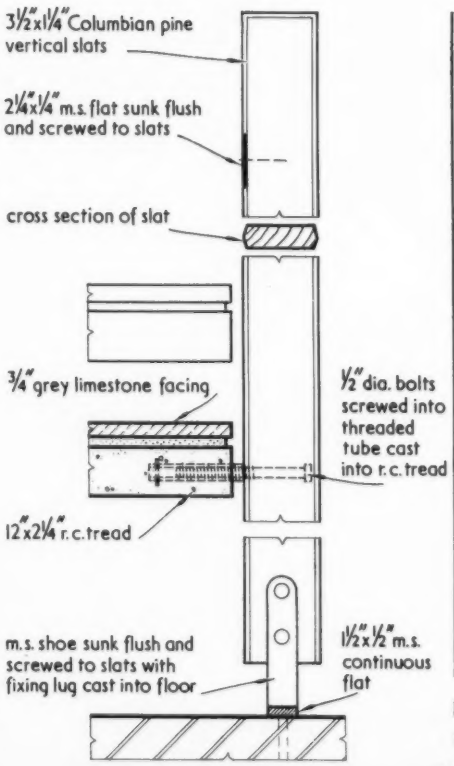
SIDE ELEVATION. scale ¼"=1'-0"



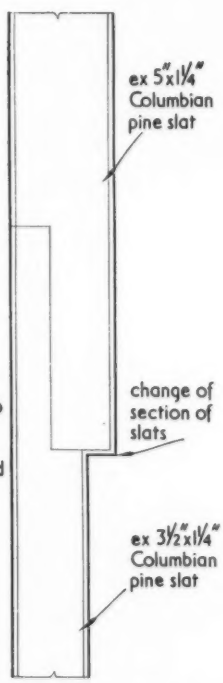
FRONT ELEVATION.



FRONT ELEVATION OF SLATS. scale ⅛ full size



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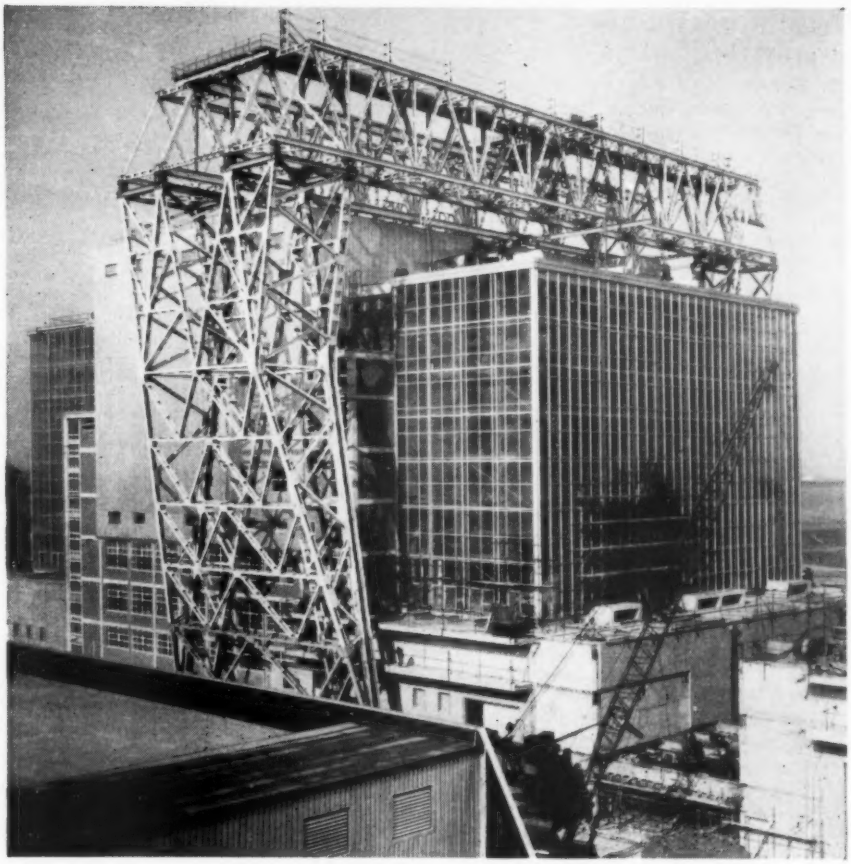
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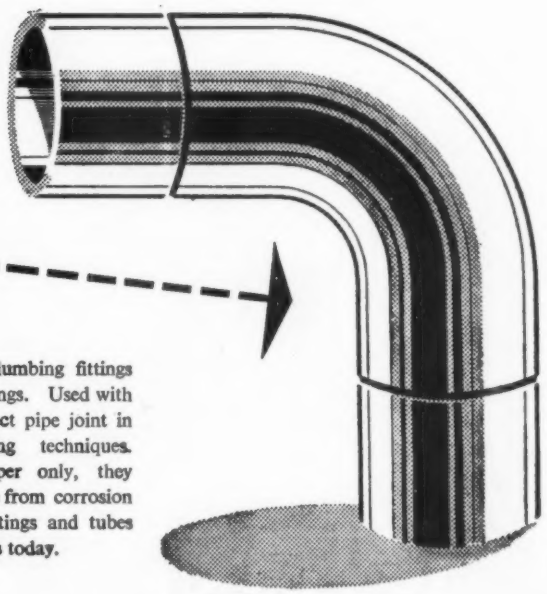
NUCLEAR POWER STATION IN ESSEX

The new nuclear power station at Bradwell-on-Sea is nearing completion. This view was taken from the roof of the main turbine hall and shows the No. 1 Reactor building, with the Goliath 200-ton overhead crane at work. The construction will cover 75 acres on the south bank of the Blackwater estuary and will be cut off from the surrounding countryside by a shelter belt of trees above which the bulk of the station will rise, but which will effectively screen the industrial spread at ground level. Landscaping has been planned by Sylvia Crowe. General contractors, The Nuclear Power Plant Co. Ltd.



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Announcements

PROFESSIONAL

Douglas A. Smith, A.R.I.C.S., A.I.Arb., has moved his London Office to Ormond House, 15, Great Trinity Lane, London, E.C.4 (telephone City 0866).

Stern & Albers, Chartered Quantity Surveyors, have moved to 3, Emperor's Gate, Kensington, London, S.W.7 (telephone Frobisher 1244).

Clifford Culpin, O.B.E., F.R.I.B.A., M.T.P.I., has taken into partnership Roland Robertson, A.R.I.B.A. The style of the firm is now Clifford Culpin & Partners.

K. C. Evans, Dip.Arch., A.R.I.B.A., has resigned his appointment as County Architect to the Isle of Ely County Council on being appointed Deputy County Architect to the Hertfordshire County Council.

V. G. Lilley, A.R.I.B.A., is now County Architect to the Isle of Ely County Council and L. R. Hibberd, A.R.I.B.A., Deputy County Architect.

Raymond J. Cecil, Dip. Arch., A.R.I.B.A., has moved to 3 Mill Street, Hanover Square, London, W.1 (telephone Mayfair 7564) and will be pleased to receive trade literature, but no representatives to call.

Donald Rowswell, A.R.I.B.A., Dip.Arch., has moved to 11/11a, George Street, Croydon. The title of the practcie is now Donald Rowswell & Partners.

TRADE

Wallace Wilson, A.M.I.E.S., A.M.Inst.B.E., is now General Sales Manager of Richard Baxendale & Sons Ltd.

The Scottish Association of Paint Manufacturers has now moved to 128, Hope Street, Glasgow, C.2 (telephone Central 6434-5).

Griffiths Bros. & Co. London Ltd. have appointed three new representatives: J. Hopkins to cover the South Wales area, R. W. Birkinshaw the West Midlands and F. Grandidge the Manchester and North West.

The Ductube Co. Ltd. has changed its name to Cufflin Holdings Ltd.

Bakelite Ltd., announce that James A. Wordingham is now Sales Promotion Manager for Warerite Products.

The Birmingham Chamber of Commerce has moved to new offices and the address is P.O. Box 360, 75, Harborne Road, Edgbaston, Birmingham, 15. (telephone Edgbaston 6171).

Spirax-Sarco Ltd. have moved their London Office to 41, Curzon Street, London, W.1 (telephone Grosvenor 1671).

United Air Coil Ltd. have moved to new premises at 14, Trinity Street, London, S.E.1 (telephone Hop 7421/4).

Hamworthy Engineering Ltd. have purchased Schieldrop & Co. of Stotfold, Beds.

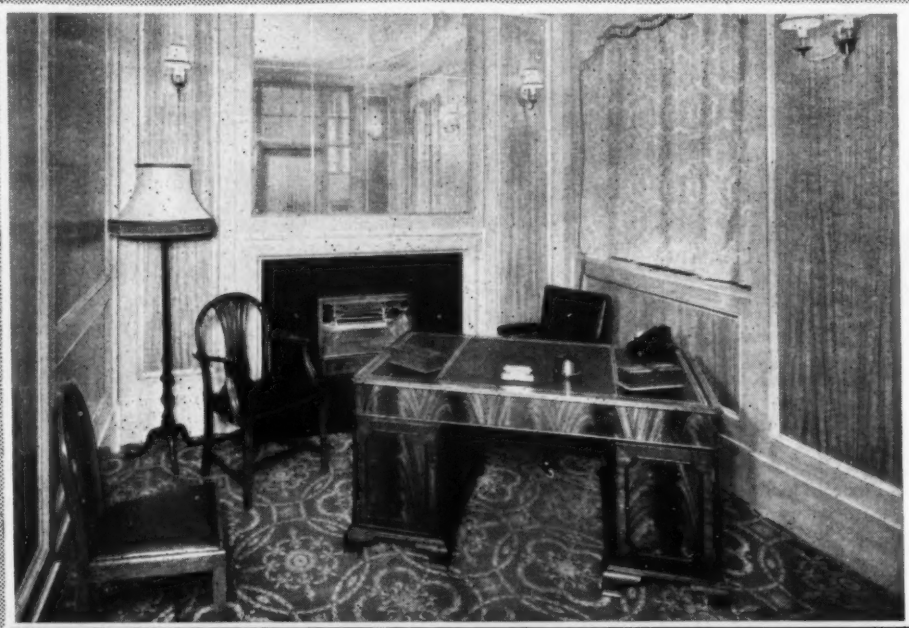
Richard Gould of Thomas Smith & Son Ltd. is now General Sales Manager and will carry out his duties from the Company's new offices at Clutha House, 10, Storey's Gate, S.W.1.

Blundell, Spence & Co. Ltd., and Permoglaze Ltd. announce that agreement has been reached for a merger to take place between the two companies.

Richard Hill Ltd., have moved their Manchester Sales Office to 19b, School Road, Sale, Cheshire. A Reinforced Concrete Design Office is to be opened at the same address and will be under the supervision of D. H. Halstead, A.M.I.Struct.E., as Chief Engineer.

G. E. More has joined the South East Region of Philips Electrical Ltd., as lamp and lighting representative for the county of Kent.

The Limestone and Green Slate Slab Co. Ltd. of Kendal announce that C. A. Harding & Co. Ltd., Blackford House, Mulgrave Road, Sutton, Surrey, have been appointed agents for High Fell Westmorland Green Slate and Orton Scar Westmorland Limestone in the London and Home Counties area.



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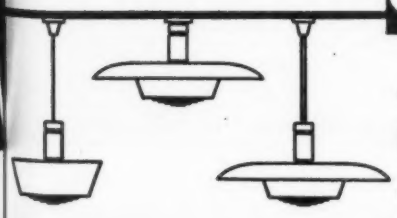
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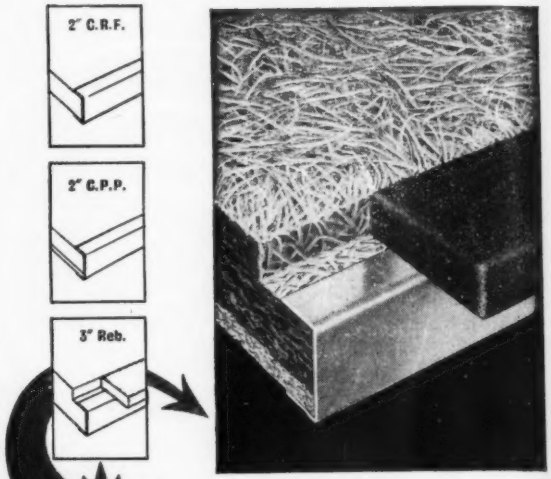
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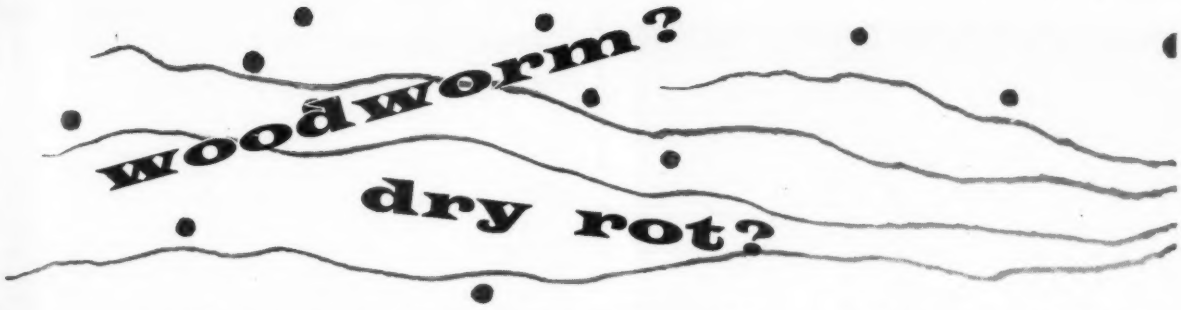
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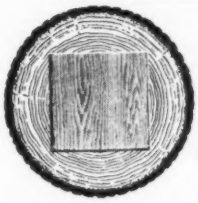


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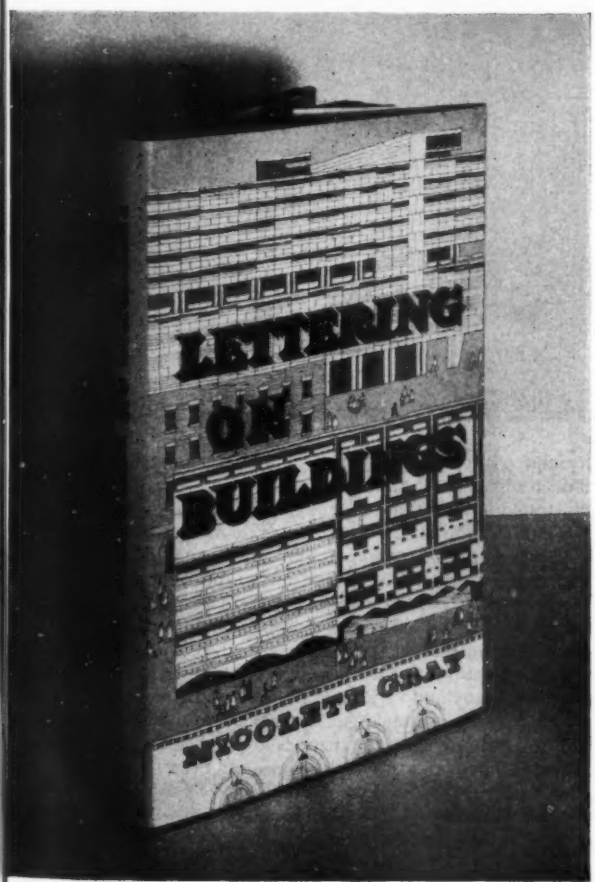


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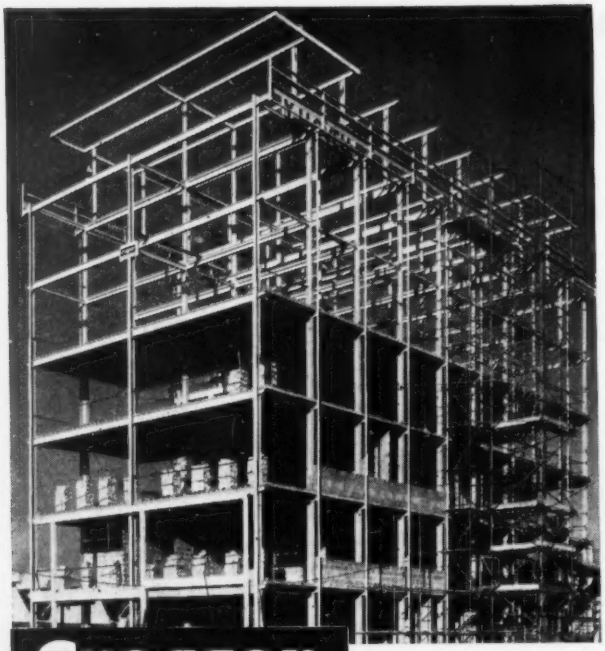
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Architects are increasingly using models to express their projects in a three-dimensional form, and this book will be of invaluable help both to them, their assistants, students, model makers professional and amateur, and all who are intrigued by buildings in miniature.

The book is illustrated with line diagrams, and photographs of a selection of models of all types of buildings by well-known contemporary architects.

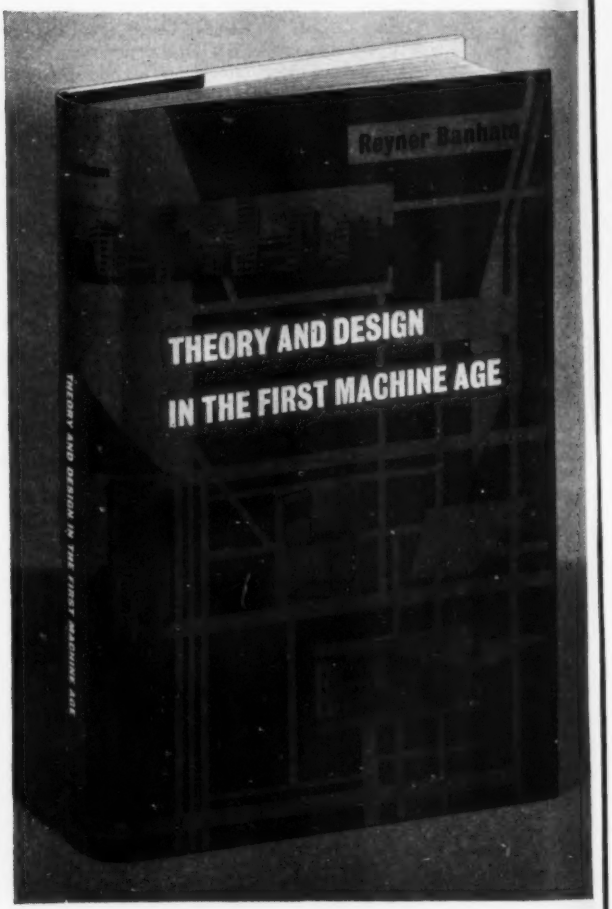
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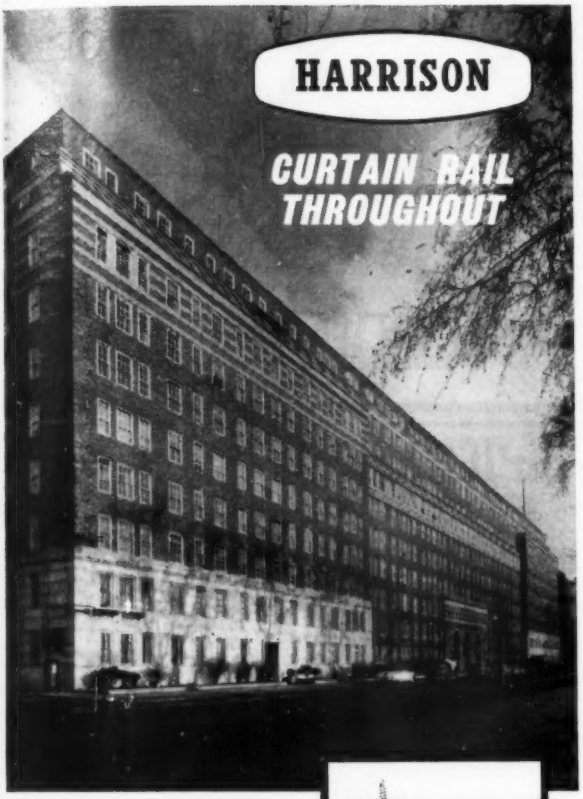
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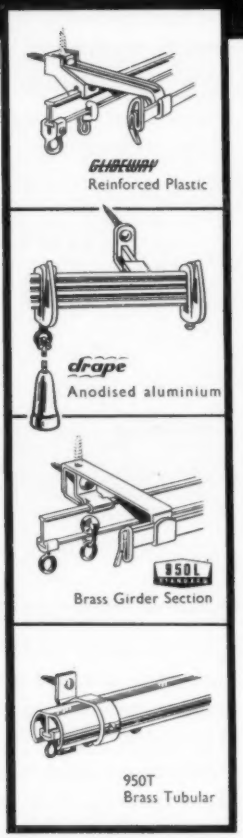
it unknown to English readers—but also buildings, projects, industrial designs, paintings and sculptures—many of them illustrated in an English-language publication for the first time. Dr. Banham shows how one unifying theme finally emerges from this melting pot of exciting designs and excited discussion—the theme of a Machine Age Architecture; the architecture of the International Style, as the historians term it; Modern Architecture, with its white walls, flat roofs and big windows, as the man in the street understands it. Into the growth of this theme went many highly inventive designs, which the author illustrates and analyses; many and varied publications, ranging from the scholarly to the scandalous, from which he quotes extensively, showing not only how the theories are related to the finished products, but also how the theories—and even the theorists—are related to one another. *Size of book* 8¾ × 5½ *in.* 340 *pages with over* 150 *half-tone and line illustrations.* 45*s. net, postage* 1*s.* 9*d.*

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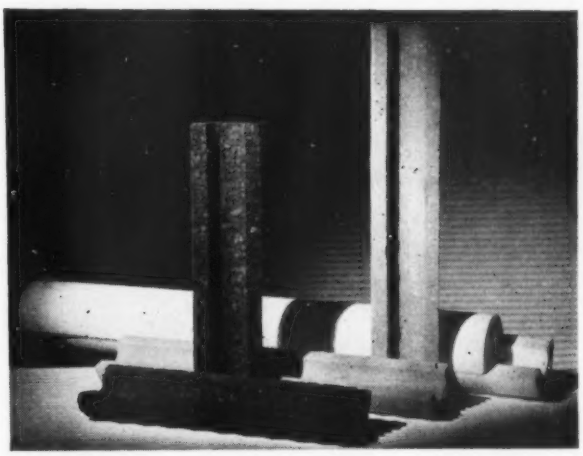
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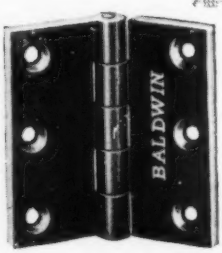
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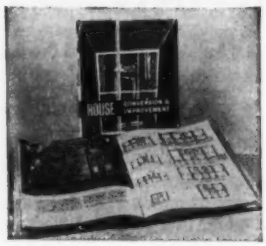
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The completely new Thermodare Underfloor Heating system offers all the advantages of a rewireable installation yet costs little more than the solid-in systems. This very low cost, combined with free accessibility, makes the Thermodare *embedded-rewireable* system the automatic choice for today's underfloor installations. Thermodare have many years of experience as heating engineers, and offer complete technical services. The time to call in Thermodare consultants is in the earliest days of the planning stage. Take full advantage of this free service. For full details of the whole Thermodare range of Heating equipment—Night Storage Heaters, Infra-Red Heating and the new Thermodare Underfloor Heating—please write your name and address on this advertisement and send it to the address below.

NAME

ADDRESS

THERMODARE

THERMODARE (GREAT BRITAIN), YORK MANSION, 94/98 PETTY FRANCE, LONDON, S.W.1
Telephone: ABBey 6586/8/9

an illustration from

Playgrounds and Recreation Spaces

Introduction by Alfred Ledermann and Alfred Trächsel. Translated by Ernst Priefert. Size 8¾ by 11⅛in. 176 pages with 302 halftones and 83 line illustrations. 63s. net, postage 2s. 0d.



It is now recognised by planners and local authorities that imaginatively-designed children's playgrounds and adult recreation spaces should be regarded as an essential amenity for all urban areas of any size, whether new or old; but so far very few really successful examples have appeared in the British Isles, and children in towns and cities continue, at their peril, to play their games in streets and on roads. On the Continent, in Scandinavia and in the U.S., however, the subject is being tackled with the seriousness and care that it deserves, and there are many interesting and successful solutions to be seen.
This book, after short introductory essays written by two of Europe's leading playground designers, consists of photographs and plans of a great variety of interesting examples taken from many countries. Each of the schemes illustrated is accompanied by a short explanatory text, together with notes on constructional details. Examples shown range from the smallest and most inexpensive to large schemes covering many acres, and they contain a wide variety of ingenious ideas, constructions and equipment for play and recreation.

THE ARCHITECTURAL PRESS, 9-13 QUEEN ANNE'S GATE, WESTMINSTER, S.W.1.

new salary scales for architects

Applications are now invited for **Architectural Assistants, Architects Grade III and Architects Grade II.**

The department is concerned with a vast building programme and in all divisions architects are wanted who are prepared to match the demands of exacting programmes with professional skill, vision and enthusiasm.

Promotion from grade to grade is by merit. Within the grades the scales are flexible and individuals whose performance merits rapid advancement can be reviewed to higher points in the scale in addition to the normal annual increment.

All positions are pensionable, and except for a small number of special appointments, permanency is granted after two years' satisfactory service.

Every effort is made to give opportunities to design to young architects, provided that they have the necessary quality.

The new building divisions are:

HOUSING All types of dwellings, flats, maisonettes and cottages.

GENERAL A varied programme of building, including welfare establishments, development in expanding towns and hostels.

SCHOOLS All types of schools.

SPECIAL WORKS Crystal Palace National Youth Centre and Sports Arena, completion of South Bank with Royal Festival Hall extensions and a varied programme of other buildings.

IMPROVEMENTS Conversion and improvements to existing buildings and adaptations for Council purposes. Individual jobs up to £20,000.

There is also a considerable programme of modernisation and rehabilitation of older type dwellings, both Council built and acquired properties.

The **London County Council** on 21 June 1960 approved the following new salary scales:

Architectural Assistants
up to £950 – (221)

Architects Grade III
£830 – £1250 – (223)

Architects Grade II
£1250 – £1500 – (117)

Architects Grade I
£1500 – £1700 – (41)

Principal Assistants (Professional)
£1700 – £1950 – (7)

Assistant Senior Architects
£1750 – £2050 – (9)

The figures in brackets give the total number of positions in each grade in the four new building divisions and the improvements division.

Similar salary improvements have been made for **architect planners, structural engineers, surveyor planners, building surveyors, quantity surveyors.** Those interested in any of these opportunities please call, write or telephone for further details to Hubert Bennett, F.R.I.B.A., Architect to the Council, Room 163 (North Block), County Hall, S.E.1, telephone WATerloo 5000, extension 7335, quoting ref. EK/1759/AJ/8.

CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, and should reach there by first post Friday morning for inclusion in the following Thursday's paper.

Replies to Box Numbers should be addressed care of "The Architects' Journal," at the address given above.

AIR-MAIL SERVICE available on request.

In response to requests from a number of Overseas subscribers for air-mail delivery of Public and Official Appointment details and Other Appointments Vacant, we have been pleased to arrange that cuttings of all such classified advertisements appearing in the A.J., shall be despatched by air-mail on Wednesday of each week (one day prior to A.J. publication date). The cost of this special service to Overseas subscribers will be 5s for four weeks (1s. 3d. for each additional week) and prepayment should be sent by subscribers wishing to take advantage of this service. The charge we are making represents only the actual cost of the postage involved.

Public and Official Accouncements

36s. per inch; each additional line 3s.

MIDDLESEX COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT

ASSISTANT ARCHITECT, A.P.T. V, £1,265—£1,420 p.a.

ASSISTANT ARCHITECT, A.P.T. IV, £1,110—£1,265 p.a.

ASSISTANT ARCHITECT, Special Grade, £785—£1,070 p.a., plus London weighting up to £45.

JUNIOR ASSISTANT, A.P.T. I, £610—£765 p.a., plus London weighting up to £40.

The department has in hand a large and interesting programme of works for School Buildings, Technical Colleges, Old People's Homes, Fire Stations and other County Buildings which will be designed under the direction of Mr. Whitfield Lewis, F.R.I.B.A., the County Architect. Organisation is on a group basis and full scope will be given to Architects who show design ability.

Appropriate professional qualifications are required for all posts and commencing salaries will be assessed according to qualifications and experience. Established appointments subject to prescribed conditions.

Application forms (s.a.e.) from The County Architect, 1, Queen Anne's Gate Buildings, Dartmouth Street, S.W.1, returnable by 10th August. (Quote C979.) 2407

ADMIRALTY—NAVY WORKS DEPARTMENT

ARCHITECTURAL ASSISTANTS are required in the newly-formed Architects' Branch at Pinner where a wide variety of new works is being handled comprising all forms of accommodation building, i.e. for sleeping, messing and recreation of naval personnel, instructional buildings, hospitals, industrial type of buildings in Dockyards, office blocks, housing estates and residences.

Architectural Assistants will work in groups with professional grade Architects.

Candidates are expected to be keen to explore new forms of construction and must be quick and competent draughtsmen. Preference will be given to those who are studying for professional qualifications and successful candidates will be considered for day release to help them in their studies.

Salary (London Rate) starting £570 p.a. (at age 21) to £783 (28 and over): maximum of scale £900 p.a.

Opportunities exist for promotion to Leading grade (salary maximum £1,055, London Rate) and further prospects for those becoming fully qualified are favourable. Every facility will be given to Assistants to obtain the necessary professional practice for Part III of their final examination.

Five-day week—annual leave 18 days rising to 22 after 10 years.

Candidates, who must be British subjects, are invited to apply in writing, giving details of qualifications and experience, to Director General, Navy Works, Admiralty, Chamberlain Way, Pinner, Middlesex. 2291

BOROUGH OF TAMWORTH

Applications are invited for the following appointments in the Borough Engineer and Surveyor's Department:—

(*a*) SENIOR ENGINEERING ASSISTANT. Salary within A.P.T. Grade II.

(*b*) ENGINEERING ASSISTANT. Salary within A.P.T. Grade I.

Applicants should have had a good general experience in a Municipal Engineer's office (housing experience would be an advantage). Preference will be given to applicants who have passed the Intermediate Examination of the Institution of Municipal Engineers or hold an equivalent qualification.

Housing accommodation available, if required.

Applications stating age, qualifications and experience, together with names of two referees should reach the undersigned, not later than 8th August, 1960. Canvassing, directly or indirectly, will disqualify.

H. B. LEAKE,
Town Clerk.

Municipal Offices,
Tamworth, Staffs.
19th July, 1960. 2442

GLASGOW CORPORATION
ASSISTANT ARCHITECTS
TOWN PLANNERS
QUANTITY SURVEYORS

The Architectural and Planning Department of the Corporation of the City of Glasgow has vacancies for a number of qualified Assistants in the above professions.

The Department has in hand a large, varied and interesting programme of works including comprehensive redevelopment, multi-storey flats, schools and civic buildings. The work will provide scope for personal initiative in the preparation of designs and details of schemes upon which construction work will follow.

The salary scale for these Assistantships is up to £1,385 with placing according to experience.

Form of application may be obtained from the Principal Administrative Officer, 20, Trongate, Glasgow, C.1.

A. G. JURY,
City Architect and Planning Officer.
1938

AYCLIFFE DEVELOPMENT CORPORATION
(NEW TOWN OF NEWTON AYCLIFFE)

ARCHITECTURAL ASSISTANT (Grade A.P.T. III, £880—£1,065 p.a.).

JUNIOR ARCHITECTURAL ASSISTANT (Grade A.P.T. I, £610—£765 p.a.).

Applications are invited for the above appointments within the grades stated according to experience and ability, for work on a variety of projects in the New Town.

Appointments subject to N.J.C. Conditions, superannuation, medical examination and to one month's notice, in writing, on either side.

Housing accommodation available if required.

Applications stating age, training, qualifications (if any), present and previous appointments and experience together with the names of two referees to arrive by Monday, 15th August, 1960. The post applied for must be clearly stated.

A. V. WILLIAMS,
General Manager.

Churchill House,
Newton Aycliffe,
Nr. Darlington. 2484

BUILDING SURVEYORS

Architect's Department, L.C.C., has vacancies in Building Regulation Division and District Surveyors' Service for work in connection with applications under the London Building Acts and Byelaws. District Surveyors' offices are located in Metropolitan Boroughs and work involves negotiations with developers and supervision of works in progress.

Up to £1,250, commencing according to qualifications and experience. Form and particulars from Hubert Bennett, F.R.I.B.A., Architect to Council (EK/AJ/1637/8), County Hall, S.E.1. 1964

SURREY COUNTY COUNCIL
COUNTY PLANNING DEPARTMENT

Applications are invited for the following posts on Grade III/IV (£880—£1,220 plus London Allowance) at Headquarters at Kingston-upon-Thames. Position on Grade to be according to qualifications and experience. Applicants must be corporate members of the Town Planning Institute.

(*a*) To be responsible for a Section connected with Development Control in two Areas of the County.

(*b*) To be responsible for work on certain Town Maps and other Development Plan and research work.

Applications endorsed "Confidential—Vacancies," stating age qualifications and experience, with details of present post and salary and the names of two referees, should be sent to the County Planning Officer, "Elmhurst," Penrhyn Road, Kingston-upon-Thames, not later than 12th August, 1960. 2466

BUCKS COUNTY COUNCIL

Applications are invited for the position of ASSISTANT COUNTY ARCHITECT, Grade "D," £1,520—£1,755 p.a. Starting salary in accordance with qualifications and experience. The position offers considerable scope to the right man.

The appointment is superannuable and subject to medical examination and applicants should be Associates of the Royal Institute of British Architects.

A weekly allowance of 25s. and return fare home once every two months may be paid for six months to newly appointed married officers of the Council unable to find accommodation.

Applications, on forms provided, must be returned by the 15th August, 1960.

F. B. POOLEY,
County Architect.

County Offices,
Aylesbury,
Bucks. 2439

BOROUGH OF EDMONTON
QUANTITY SURVEYING ASSISTANT
BOROUGH ARCHITECT'S DEPARTMENT

Applications are invited from suitably qualified persons for the appointment of Quantity Surveying Assistant, salary within grade A.P.T. II (£780—£920) inclusive of London weighting. Training and financial assistance scheme, five-day week.

Applications, on forms obtainable from the Town Clerk, Town Hall, Edmonton, N.9, must be delivered by 26th August, 1960.

PJM/ACC. 2545

CWMBRAN DEVELOPMENT CORPORATION
APPOINTMENT OF ASSISTANT ARCHITECTS

Applications are invited for the following superannuable vacancies in my Department:—

(*a*) ONE ASSISTANT ARCHITECT, Grade IV (£1,065—£1,220).

(*b*) ONE ASSISTANT ARCHITECT, Grade II/III (£765—£1,065).

Candidates for post (*a*) should be Associates of the R.I.B.A. with suitable office experience particularly in house design, construction and layout.

For post (*b*) applicants should either have passed the Intermediate Examination of the R.I.B.A. and had some office experience or be graduate architects who may have recently completed their training.

Housing accommodation will be made available to the successful applicants if needed.

Applications stating age, experience, details of present and former employment (together with applicable salaries) and the names and addresses of two referees must reach the undersigned by first post on 15th August, 1960.

J. C. P. WEST, A.R.I.B.A., M.T.P.I.,
Chief Architect.

Victoria Street,
Cwmbran, Mon. 2463

WARWICKSHIRE COUNTY COUNCIL
ARCHITECT'S DEPARTMENT

Applications are invited for the following appointments:—

(*a*) ARCHITECTS, Special Grade (£785—£1,070).

Applications are invited from architects who have passed Parts I and II of the R.I.B.A. Final or special examination or their equivalent at one of the recognised schools of architecture. The successful applicants will work in groups on large projects, and an opportunity will be given to men with enthusiasm and ability to design and carry out projects under a group architect.

(*b*) ARCHITECTURAL ASSISTANTS, Grade A.P.T. II (£765—£880).

Vacancies exist for assistants who are up to Intermediate R.I.B.A. standard and who require experience in a variety of interesting projects.

The commencing salary can be within the grade according to ability and experience. Five-day week worked. The Council have schemes for the payment of removal expenses and a lodging allowance to married officers. Application forms and full conditions applicable to the appointments can be obtained from Eric Davies, F.R.I.B.A., A.M.T.P.I., County Architect, Shire Hall, Warwick.

L. EDGAR STEPHENS,
Clerk of the Council.

Shire Hall,
Warwick.
July, 1960. 2465

LONDON ELECTRICITY BOARD
ARCHITECTURAL ASSISTANTS

Applications are invited for the above positions in the Chief Engineer's Architect's Section at Lesco House, Stamford Street, S.E.1.

Applicants should be studying for, or have passed, the Intermediate Examination of the R.I.B.A., be capable draughtsmen and have had several years' experience in an architect's office.

Pending determination as to the grading of the posts within Schedule "B" of the National Joint Board Agreement, the salary will be in the provisional range £695 per annum rising to £925 per annum inclusive of London Allowance.

Application form obtainable from the Personnel Officer, 46, New Broad Street, E.C.2., to be returned completed within 14 days of the publication date of this notice. Please quote ref. PER/V/3033/A. 2441

BOROUGH OF SOLIHULL
APPOINTMENT OF LANDSCAPE ARCHITECT

Applications are invited from members of the Institute of Landscape Architects who have had considerable experience, for appointment as Landscape Architect in the Borough Engineer and Surveyor's Department at a salary in accordance with A.P.T. Grade IV—£1,065 × £55 (1) × £50 (2) to £1,220.

The rapid growth of the Borough has necessitated the development of public open spaces and playing fields, as well as the landscaping of housing estates, etc.

Half the reasonable cost of removal expenses will be paid, and where applicable housing accommodation made available as soon as possible.

The appointment is subject to the provisions of the Local Government Superannuation Acts; the National Scheme of Conditions of Service, a medical examination and to one month's notice on either side.

Applications, giving full particulars as to present and past experience, together with the names and addresses of two referees, should be submitted to the Borough Surveyor, 90, Station Road, Solihull, not later than 9th August, 1960.

W. MAURICE MELL,
Town Clerk.

The Council House,
Solihull.
14th July, 1960. 2468

COUNTY OF ANGLESEY
CHIEF ASSISTANT ARCHITECT
Grade A.P.T. IV

Applications are invited from appropriately qualified architects for the above appointment within the salary scale £1,065—£1,220.

Applications to the Acting Clerk of the County Council, Shire Hall, Llangefni, Anglesey, by not later than 13th August, 1960. 2421

CUMBERLAND COUNTY COUNCIL
APPOINTMENT OF COUNTY ARCHITECT

Applications are invited for the appointment of County Architect for the Administrative County of Cumberland. Salary within the scale £2,780 (1 × £115); (2 × £110)—£3,115 p.a. Application forms, together with further details, may be obtained from the undersigned, to be returned not later than Thursday, 1st September, 1960.

G. N. C. SWIFT,
Clerk of the County Council.

The Courts,
Carlisle.
21st July, 1960. 2526

COUNTY BOROUGH OF WEST BROMWICH

Applications are invited for the following appointments:—

SENIOR ASSISTANT ARCHITECT, A.P.T. IV (£1,065 to £1,220 per annum).

ARCHITECTURAL ASSISTANTS, A.P.T. I (£610 to £765 per annum).

Applications stating age, qualifications and experience, together with the names and addresses of two referees should be sent to the undersigned by the 10th August, 1960.

W. H. GREENWOOD,
Borough Engineer & Surveyor.

Town Hall,
West Bromwich. 2432

NEWCASTLE REGIONAL HOSPITAL BOARD
EXPANSION OF ARCHITECTURAL DEPARTMENT
P. H. KNIGHTON, M.B.E., A.R.I.B.A.,
REGIONAL ARCHITECT

Arising from the number of major projects (totalling about £14m.) to be carried out in the Newcastle Region as part of the Hospital Expansion Programme, the Board intends to add considerably to its Architectural Department in Newcastle.

The work is of a high-class and varied nature and offers ample opportunity for gaining experience in both highly-specialised hospital structures and many types of ancillary general and domestic buildings. Possession of hospital experience is not essential. The work will involve all stages from sketch plans to supervision of construction and a car mileage allowance will be paid.

APPLICATIONS are invited for the following (superannuable) posts:

SENIOR ASSISTANT ARCHITECTS.
(£1,300 × £60(5) — £1,600)

Applicants should be registered architects and have had experience of the design and construction of major public buildings. Experience of hospital work is desirable but not essential.

ASSISTANT ARCHITECTS.
(£905 × £35(1) × £45(6) × £50(2) — £1,310)

Applicants should have passed the R.I.B.A. Final Examination. For Registered architects increments can be given above the bottom of the grade in accordance with relevant practical experience since qualifying.

ARCHITECTURAL ASSISTANTS.
(£625 × £30(8) × £35(1) — £900)

Inter R.I.B.A. and preferably some practical experience.

ARCHITECTURAL DRAUGHTSMEN.
(£475 × £25(6) × £30(2) — £685)

Applicants should have had 3 years' previous experience in an architect's drawing office and be neat and quick draughtsmen.

Evening study facilities are available at King's College of Durham University in Newcastle.

Applications should give details of professional training, qualifications, experience and posts held, present salary and any other relevant information, and should be accompanied by the names of three architectural referees and should reach the Secretary to the Board, Benfield Road, Newcastle upon Tyne 6, not later than 11th August, 1960.

Canvassing will disqualify. 2486

BLETCHLEY URBAN DISTRICT COUNCIL
APPOINTMENT OF ARCHITECTURAL ASSISTANT

The Council is about to embark on the second stage of Town Development which will require the provision of some 1,500 dwellings of all kinds, Shops, Factories and Offices, as well as other associated buildings.

Applications are invited for an Architectural Assistant at a salary within Grade 3 of the A.P.T. Division of the National Scale of Salaries, and subject to one month's notice on either side and the Southern Provincial Council Scheme of Conditions of Service.

Applicants should have had a sound training in architectural work and have reached the Intermediate R.I.B.A. standard.

Housing accommodation will be provided, and if the successful candidate uses his own car in connection with his duties, an allowance will be made on the Casual Users' Scale, for a car not exceeding 1,014 c.c.

Applications, stating details of age, qualifications, experience, present and past appointments, with the names and addresses of two persons to whom reference may be made, should be delivered to the undersigned by noon on Tuesday, 16th August, 1960.

J. F. SMITHIE, M.I.Mun.E.,
Engineer & Surveyor.

Council Offices,
Bletchley.
22nd July, 1960. 2522

BUCKS COUNTY COUNCIL

Applications are invited for the following appointments in the County Architect's Department:—

ASSISTANT ARCHITECT, J.N.C. Scale "C," £1,385—£1,620 p.a.

ASSISTANT ARCHITECT, J.N.C. Scale "B," £1,285—£1,485 p.a.

ASSISTANT ARCHITECT, A.P.T. Grade V, £1,220 —£1,375 p.a.

The appointments are superannuable and subject to medical examination and applicants should be suitably qualified for architectural appointment.

A weekly allowance of 25s. and return fare home once every two months may be paid for six months to newly appointed married officers of the Council unable to find accommodation.

Applications, on forms provided, must be returned by the 15th August, 1960.

F. B. POOLEY,
County Architect.

County Offices,
Aylesbury,
Bucks. 2438

HERTFORDSHIRE
QUANTITY SURVEYORS' SECTION

County Architect: GEOFFREY FARDELL, M.B.E., A.R.I.B.A.

Opportunities exist for R.I.C.S. Finalists to complete the new permanent establishment in a lively Quantity Surveyor's Section which enjoys a high reputation in the use of progressive techniques. There is no specialisation unless "taking-off" only is desired.

Applicants are invited to submit immediately brief details of age, training, experience and qualifications.

Prospective candidates will then be invited to arrange a preliminary interview with the Principal Quantity Surveyor, C. M. Nott, F.R.I.C.S., Hertford 4242, Extension 322, to discuss salaries, prospects, scope of work and the organisation of the Section.

In general the salary grades offered have maximum of £1,070, £1,220 and £1,275.

Applications to County Architect, County Hall, Hertford, Herts. 2541

HERTFORDSHIRE
COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for the following posts:—

(*a*) GROUP ARCHITECT. Salary: N.J.C. scale "D"—£1,520 to £1,755 per annum. Applicants should possess experience, enthusiasm, good design ability and be able to lead a group of qualified architects.

(*b*) ARCHITECTS. Vacancies also exist for Assistant Architects at salaries up to £1,070 (recently qualified) and £1,220 p.a. (fully qualified with a minimum of three years' experience).

Car user allowances are available for senior posts and previous Local Government experience is not essential.

Further particulars and form of application to be obtained from Geoffrey Fardell, M.B.E., A.R.I.B.A., County Architect, County Hall, Hertford, Herts., to whom they should be returned not later than Wednesday, 10th August, 1960. 2542

LONDON COUNTY COUNCIL
ARCHITECT'S DEPARTMENT

Vacancies for ARCHITECT/PLANNERS. Tasks include three-dimensional planning in Comprehensive Development Areas and all other important areas of new development throughout London, including those associated with road improvements. Up to £1,250 according to experience and qualifications. Forms and particulars from Hubert Bennett, F.R.I.B.A., Architect to the Council (EK/AJ/1790/8), County Hall, S.E.1. 2180

CORPORATION OF THE CITY OF ABERDEEN
CITY ARCHITECT'S DEPARTMENT

Applications are invited from qualified Architects (A.R.I.B.A.) for two posts of ASSISTANT ARCHITECT in the above Department—one temporary and one permanent.

The Scale for the temporary post is £1,250 rising by annual increments of £35 to £1,320 per annum.

The Scale for the permanent post is £1,085 rising by annual increments of £35 (3) and £45 to £1,235 per annum.

Applications, stating name, address, age, qualifications, experience, previous and present appointments held, and the names and addresses of three Architects to whom reference may be made, should be sent to the City Architect, on or before 10th August.

J. C. RENNIE,
Town Clerk.

Town House,
Aberdeen.
12th July, 1960. 2529

BRITISH RAILWAYS
ASSISTANT ARCHITECTS

ASSISTANT ARCHITECTS required for the Architect's Office of British Railways, 32, Elmbank Crescent, Glasgow. Good designing ability and A.R.I.B.A. qualifications essential. Commencing salary between £1,100 and £1,200 per annum.

Candidates should apply in writing to the Chief Civil Engineer, British Railways, St. Enoch Station, Glasgow, C.1. 2565

CUMBERLAND COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for the appointment of ASSISTANT COUNTY ARCHITECT (DESIGN) at a salary within J.N.C. Scale A (£1,260 × £50 (1) × £30—£1,390). Essential User Grade C travelling allowance. Housing accommodation is available.

Applicants must be A.R.I.B.A.—this is an excellent opportunity for a young Architect with a flair for design.

Further details and application forms, to be returned not later than Monday, 22nd August, 1960, may be obtained from the Acting County Architect, 15, Portland Square, Carlisle. The successful applicant will be required to take up his duties as soon as possible.

G. N. C. SWIFT,
Clerk of the County Council. 2483

CITY OF PORTSMOUTH
USE OF ROUND TOWER, ETC.

The Corporation invites schemes and offers for the use of the Round Tower and parts of the adjoining accommodation situated at Point Battery, Broad Street, Old Portsmouth. Closing date 31st October, 1960.

Certain restrictions will be imposed having regard to the historical character of existing buildings and fortifications, otherwise the developer is at liberty to submit such proposals as are considered to be in both public and/or private interests.

Further particulars and drawings may be obtained from the City Development Officer, Municipal Offices, 1, Western Parade, Southsea, Portsmouth.

V. BLANCHARD,
Town Clerk. 2535

CHESTERTON RURAL DISTRICT COUNCIL
ARCHITECT'S DEPARTMENT

Applications are invited for the following appointments:—

(*a*) DEPUTY ARCHITECT, Grade £1,080—£1,260 p.a.

(*b*) ARCHITECTURAL ASSISTANT, Grade A.P.T. II (£765—£880 p.a.).

Applicants for position (*a*) must be Registered Architects.

Applicants for position (*b*) must have had a sound architectural training and be capable of preparing working drawings, specifications and making surveys.

The appointments are subject to the terms of the National Joint Council Scheme of Conditions of Service and the Local Government Superannuation Acts, and to termination by one month's notice on either side. The successful applicants will be required to pass a medical examination.

Applications, suitably endorsed, stating age, qualifications, experience, past and present appointments, should be delivered to the undersigned accompanied by copies of two recent testimonials or names of referees, not later than Monday, the 22nd August, 1960.

W. H. HAYWARD,
Clerk of the Council.

County Hall,
Hobson Street,
Cambridge. 2539

BOROUGH OF RAWTENSTALL
APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the above-mentioned appointment on the permanent staff of the Borough Surveyor. The salary payable will be within the limits of the Special Grade (£765 to £1,070); the starting salary will be fixed according to experience.

Candidates should have passed the final examination of the A.R.I.B.A.

The appointment will be subject to the provisions of the Local Government Superannuation Acts, the National Scheme of Conditions of Service and to termination by one month's notice by either side.

Housing accommodation will be provided if required.

Applications with relevant particulars including the names and addresses of two persons to whom reference may be made, should reach the undersigned not later than Friday, August 26th, 1960.

Canvassing will disqualify. Any relationship to members or senior officers of the Council must be disclosed.

(Signed) COLIN CAMPBELL,
Town Clerk

Town Hall,
Rawtenstall,
Rossendale, Lancs.
25th July, 1960. 2537

WEST SUSSEX COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for the following appointment:—

ARCHITECTURAL ASSISTANT, at a salary in accordance with Grade II of the National Scales of Salaries (£765—£880). Commencing salary according to experience.

Further particulars should be obtained from the County Architect, County Hall, Chichester, to whom all detailed applications must be submitted not later than 18th August, 1960.

T. C. HAYWARD,
Clerk of the County Council.

County Hall,
Chichester. 2531

BOROUGH OF DAGENHAM
ARCHITECTS

Applications are invited for the following appointments in the Borough Engineer and Surveyor's Department:—

(a) SENIOR ASSISTANT ARCHITECTS (2)—Grade A.P.T. V (£1,220—£1,375 plus £45 London weighting).

(b) ARCHITECTURAL LEARNER (1)—Grade GD/A.P.T. I (£305—£765 plus £15—£40 London weighting).

Applicants for posts (a), which rank next in seniority to the Chief Architect, must be Associates R.I.B.A. and suitably experienced.

Applicants for (b) will be required to possess a General Certificate of Education in at least five subjects at "O" level including English language and mathematics.

The Council have an interesting building programme including new schools, housing, redevelopment schemes, covered swimming bath, general municipal buildings, etc.

Housing accommodation may be made available.

Application forms, etc., from the Borough Engineer and Surveyor, to whom they must be returned by Monday, 29th August, 1960.

KEITH LAUDER,
Town Clerk.

Civic Centre,
Dagenham. 2508

COUNTY BOROUGH OF BLACKPOOL

Applications are invited for ASSISTANT QUANTITY SURVEYORS, Special Scale (£785—£1,070 p.a.).

Forms, etc., from Arthur Hamilton, B.Sc., A.R.I.B.A. (Borough Surveyor), P.O. Box 17, Municipal Offices, Blackpool. 2306

THE SCOTTISH GAS BOARD
(GLASGOW AND WESTERN DIVISION)
INVITE ATTENTION
of
ARCHITECTS AND DESIGNERS
to the
FOLLOWING DESIGN COMPETITION

An invitation is extended to Architects, Designers, students of the R.I.B.A. and students in the final year at a School of Architecture whose course is recognised for exemption from the R.I.B.A. Final examination, to submit designs in competition for two Stands to be erected at the Modern Homes Exhibition, Kelvin Hall, Season 1960. One Stand will exhibit various types of Central Heating and Domestic Hot Water Installations, the other a comprehensive variety of domestic gas appliances.

Assessors:—Professor Frank Fielden, M.A., F.R.I.B.A., Glasgow.
Jack Howe, Esq., F.R.I.B.A., F.S.I.A., London.

Premiums:—£150, £75, £50, will be paid for completion of drawings and supervision of erection of stands.

Last day for submitting designs:—30th August, 1960.

Conditions may be obtained from the Controller of Sales, The Scottish Gas Board, Glasgow & Western Division, 9, George Square, Glasgow, C.2. 2506

PETERLEE DEVELOPMENT CORPORATION
APPOINTMENT OF SENIOR ARCHITECTS (3)

Architectural staff are required for interesting work in the New Town of Peterlee, County Durham. Under the direction of the Corporation's Chief Architect, R. J. A. Gazzard, A.R.I.B.A., A.A.Dipl., M.T.P.I., S.P.Dipl., work is being carried out on housing design and layout, industrial and commercial development, and development of the Town Centre.

Applicants should be experienced in contract administration and the preparation of constructional details relative to housing and town centre design. Salary Grade A.P.T. VI, £1,163—£1,390 per annum, commencing according to experience.

The appointments, which are superannuable, are subject to the Corporation's Staff Rules and Conditions of Service and will be terminable by one month's notice in writing on either side. The successful applicants will be required to pass a medical examination. Housing accommodation will be made available if necessary.

Applications, stating age, experience and qualifications, and giving the names of two persons to whom reference can be made, should reach the undersigned not later than Monday, 15th August, 1960.

A. V. WILLIAMS,
General Manager.

Shotton Hall,
Peterlee,
Co. Durham. 2523

BOROUGH OF NEWCASTLE-UNDER-LYME

Applications are invited for the following established posts:—

(a) SENIOR ARCHITECTURAL ASSISTANT, Grade A.P.T. IV (£1,065—£1,220 p.a.).

(b) ASSISTANT ARCHITECT, Special Grade (£785—£1,070 p.a.).

All applicants must have passed the R.I.B.A. Final Examination; applicants who have recently qualified will be suitable for post (b). Commencing salaries will be in accordance with experience.

Works pending include a Crematorium, Shops, Offices, Flats, Branch Libraries and other interesting projects.

A five-day week is in operation and housing accommodation will be made available in suitable cases.

Application Forms and Conditions of Service may be obtained from the Borough Surveyor, Lancaster Building, Newcastle, Staffordshire, and must be returned to him not later than Monday, 15th August, 1960.

C. J. MORTON,
Town Clerk.
2507

THE POLYTECHNIC, 309, REGENT STREET, W.1
SCHOOL OF ARCHITECTURE, SURVEYING, AND TOWN PLANNING

Applications are invited for the undermentioned posts in the School of Architecture. Duties to commence as soon as possible.

(a) LECTURER IN ARCHITECTURE.
(b) GRADE B ASSISTANT IN ARCHITECTURE.

Candidates must be associates of the Royal Institute of British Architects and should have had both teaching and professional experience.

The salary scale for (a) commences at £1,370 and rises to a maximum of £1,550 plus London allowance of £38 or £51 per annum, and for (b) commences at £790 and rises to a maximum of £1,240 per annum plus London allowance. The starting point may include increments for previous professional experience.

A form of application, which should be returned within two weeks of the publication of this advertisement, may be obtained from the undersigned.

J. E. RICHARDSON,
Director of Education.
2551

BOROUGH OF BEBINGTON
SENIOR ARCHITECTURAL ASSISTANT
GRADE IV, A.P.T.

Applications are invited for the above post, commencing salary of which will be fixed according to qualifications and experience. A car allowance on the casual user scale will be payable.

A five-day week is in operation.

Applicants must hold appropriate architectural qualification and should also be capable of undertaking development schemes of housing and public buildings.

Application forms are available from the Borough Engineer and Surveyor, Town Hall, Bebington, Cheshire, and should be returned to the Town Clerk so as to be received by him, at the same address, not later than first post on Friday, 19th August, 1960.

The candidate appointed, if married and considered by the Council to be in need of housing at the time of appointment, will be found accommodation within a reasonable period of time.

Canvassing will be a disqualification. 2580

CHESHIRE COUNTY ARCHITECT'S DEPARTMENT

Applications are invited, on forms obtainable from me, for posts of ARCHITECTURAL ASSISTANT in the following grades. Five-day week and canteen facilities:—

A.P.T. V—£1,220 × £55 (1) and £50 (2)—£1,375 p.a.
A.P.T. IV—£1,065 × £55 (1) and £50 (2)—£1,220 p.a.
A.P.T. III—£880 × £35 (3) and £40 (2)—£1,065 p.a.
A.P.T. II—£765 × £25 (1) and £30 (3)—£880 p.a.

EDGAR TABERNER, A.R.I.B.A.,
County Architect.

County Hall,
Chester. 2569

WESTERN REGIONAL HOSPITAL BOARD

Applications are invited for the following posts from registered architects with full professional qualifications.

PRINCIPAL ASSISTANT ARCHITECT, GRADE II.

Salary £1,665 rising by five annual increments to £2,035. Previous hospital experience will be an advantage.

SENIOR ASSISTANT ARCHITECTS.

Salary £1,300 rising by five annual increments to £1,600. Hospital experience not essential.

ASSISTANT ARCHITECTS.

Salary within range £905—£1,310 according to experience. Hospital experience not essential.

All posts are subject to National Health Service conditions and are superannuable. Successful candidates may be required to pass a medical examination. Applications, stating age, qualifications and details of previous experience, together with the names of three referees, should be addressed to the Secretary, 351, Sauchiehall Street, Glasgow, .C.2, within 14 days of the appearance of this advertisement. 2567

CITY OF SALFORD
CITY ENGINEER & SURVEYOR'S DEPARTMENT

Applications are invited from appropriately qualified persons for the following posts in the Department of the City Engineer & Surveyor (G. A. McWilliam, B.Sc., A.M.I.C.E., A.R.I.C.S., M.I.Mun.E.).

(a) ASSISTANT ARCHITECT, Grade A.P.T. IV (£1,065 per annum to £1,220 per annum).
(b) ASSISTANT ARCHITECT, Special Grade (£785 per annum to £1,070 per annum).
(c) ASSISTANT QUANTITY SURVEYOR, Special Grade (£785 per annum to £1,070 per annum).
(f) QUANTITY SURVEYORS' ASSISTANTS (2), Grades A.P.T. I/II (£610 per annum to £880 per annum).

The commencing salaries will be dependent upon qualifications and experience.

The Department is undertaking programmes of redevelopment and urban renewal and the posts will afford a wide variety of interesting experience.

Housing accommodation may be provided in approved cases and facilities for completion of professional training may be given in respect of post (f). The appointments are subject to the provisions of the Local Government Superannuation Acts, the National Scheme of Conditions of Service, the Standing Orders of the City Council, the passing of a medical examination, and are terminable by one calendar month's notice.

Applications indicating the post applied for and stating age, education, qualifications, and details of experience, together with the names and addresses of two referees, should be sent to the City Engineer and Surveyor, Town Hall, Salford, 3, Lancs., to arrive not later than Monday, 22nd August, 1960.

R. RIBBLESDALE THORNTON,
Town Clerk.
2573

BOROUGH OF EALING

TOWN PLANNING ASSISTANT, A.P.T. III, £925—£1,100 inclusive. Must be suitably qualified and experienced in development control. Full particulars and application form from Borough Engineer, Town Hall, Ealing, W.5. Closing date 15th August, 1960. 2514

WEST AFRICAN BUILDING RESEARCH INSTITUTE
LIAISON OFFICER

Qualifications: Candidates, between 30 to 50 years of age, must be A.M.I.C.E. or A.R.I.B.A., with at least five years' experience of design and construction in the Tropics. A degree in Engineering or Architecture is desirable.

Duties: To undertake enquiries, surveys and field research for the Institute and to further interchange of enquiries and advice between the Institute and the building and construction industry in West Africa.

Terms of Appointment: On Contract for two tours of from 15 to 24 months in the first instance.

Emoluments in scale £1,944 to £2,196 p.a., plus substantial gratuity. Free passages. Generous home leave. Substantial children's allowances.

Apply Director of Recruitment, Colonial Office, London, S.W.1. Give full name and age and brief details of qualifications and experience. Quote: BCD.197/487/05/E2. 2572

The new aids to Roof Construction

FULLY GUARANTEED

Patent No. 764973

PAROVENTS

ARCHITECTS' JOURNAL INFORMATION SHEET AND FULLY ILLUSTRATED BROCHURE AND PRICE LIST FROM

PARAMOUNT ASPHALTE
LIMITED
149 KENNINGTON PARK ROAD
LONDON, S.E.11
Tel.: RELiance 2373-2191

CITY OF NOTTINGHAM EDUCATION COMMITTEE
COLLEGE OF ART AND CRAFTS

Principal: ROBERT LYON, D.A. (GLAS.), F.R.S.A.
Head of the School of Architecture: D. W. NOTLEY, B.ARCH. (HONS.), L'POOL, A.R.I.B.A.

Applications are invited for the post of two full-time STUDIO MASTERS in the School of Architecture which is recognised for exemption from the R.I.B.A. Final Examination. Duties to commence on the 1st September, 1960, or nearest date possible thereafter. Candidates should be Architects, preferably holding the degree or diploma of a recognised School, and should have had a minimum of three years' practical architectural experience after registration. Salary to be in accordance with the Burnham Technical Scale for Grade B Assistants, *i.e.* £700 × £27 10s.—£1,150 (men) and £630 × £22—£920 with equal pay increments (women).

Application forms and further particulars from the Principal, College of Art and Crafts, Waverley Street, Nottingham, to whom the forms should be returned within 10 days of the publication of the advertisement.

W. G. JACKSON,
Director of Education.

Education Office,
Exchange Buildings,
Smithy Row,
Nottingham. 2516

THE ARCHITECTURAL ASSOCIATION
SCHOOL OF ARCHITECTURE

The Council of the Association invite applications for the post of SENIOR STRUCTURES LECTURER, beginning 1st November, 1960. Salary £1,300 p.a. The appointment requires attendance at the A.A. School equivalent to 3½ days a week in term time, in addition to the time required for lectures. Facilities are available for the Senior Structures Lecturer to undertake private consultant work. Full particulars of the appointment may be obtained from the Secretary, Architectural Association, 36, Bedford Square, London, W.C.1. Candidates should give full information about their academic career and training, and the names of two referees. All applications to be submitted by 1st October, 1960. 2520

BOROUGH OF WREXHAM

Applications are invited for the following appointments:—

(*a*) TWO ENGINEERING ASSISTANTS. Salary A.P.T. Grade IV (range £1,065—£1,220 per annum).
(*b*) TWO ARCHITECTURAL ASSISTANTS. Salary Special Grade (range £785—£1,070 per annum).

Candidates should have passed the Final examination of the Institution of Civil or Municipal Engineers or of the R.I.B.A., as appropriate, and have had experience with a Municipal Authority.

Casual car allowance will be paid on the instructions of the Borough Surveyor and the Council will consider payment of removal expenses.

Housing accommodation provided if required.

Forms of application and particulars of duties and works in hand obtainable from the Borough Surveyor, 31, Chester Street, Wrexham.

Applications to be returned to the undersigned by not later than 12 noon, 22nd August, 1960.

PHILIP J. WALTERS,
Town Clerk.

Guildhall,
Wrexham.
July, 1960. 2517

CITY OF NOTTINGHAM EDUCATION COMMITTEE
COLLEGE OF ART AND CRAFTS

Principal: ROBERT LYON, D.A. (GLAS.), F.R.S.A.
Lecturer-in-Charge: D. S. KILNER, DIPL.T.P. (LEEDS), A.R.I.B.A., M.T.P.I.

Applications are invited for the full-time post of LECTURER in the Department of Town and Country Planning, which is recognised for exemption from the Final Examination of the Town Planning Institute. Duties to commence as early as possible. Candidates should be corporate members of the Town Planning Institute and the Royal Institute of British Architects.

Salary: Burnham Report 1959, Lecturer Scale, *i.e.* £1,370 × £35—£1,550, with one final increment of £40 (men), and £1,100 × £28—£1,240 with equal pay increments (women).

Further particulars and application forms can be obtained from the Principal, College of Art and Crafts, Waverley Street, Nottingham, to whom the latter should be returned within 14 days of this advertisement.

W. G. JACKSON,
Director of Education.

Education Office,
Exchange Buildings,
Nottingham. 2518

KESTEVEN COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
ASSISTANT ARCHITECTS
Special Grade (£785—£1,070)

Full particulars of the above appointments may be obtained from the County Architect, County Offices, Sleaford, Lincs.

Applications from suitably qualified persons, with the names and addresses of two referees, should reach the undersigned not later than the 26th August, 1960.

J. E. BLOW,
Clerk of the County Council.

County Offices,
Sleaford, Lincs. 2533

BOROUGH OF EASTLEIGH
APPOINTMENT OF TOWN PLANNING ASSISTANT

Applications are invited for the above appointment in the Borough Engineer's Department at a salary within Grade A.P.T. V, £1,220—£1,375 per annum.

The National Joint Conditions of Service will apply and the successful applicant must pass a medical examination. Up to 50 per cent. of approved removal expenses will be paid.

This is a new appointment in a rapidly growing town and offers considerable scope to a man with ambitions. The preparation of a comprehensive scheme for redevelopment of the town centre in connection with slum clearance proposals is to be embarked upon shortly and will provide interesting work for an enthusiastic planner.

Applicants must be Corporate Members of the Town Planning Institute or have other recognised professional qualifications of a comparable standard and must have had experience in all aspects of Town Planning Work.

Applications, stating age, qualifications, experience of previous appointments, together with the names of two referees, must be received by the undersigned not later than 12 noon on 18th August, 1960.

ROLAND J. RODDIS,
Town Clerk.

Town Hall,
Hants.
22.7.60. 2519

STAFFORDSHIRE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
ARCHITECTURAL ASSISTANTS — R.I.B.A. Intermediate standard. Salary within grade £765 to £880 per annum, according to experience.

Vacancies exist for the above posts, offering valuable experience working within a group on a wide variety of projects, including Colleges, Schools, Libraries, Hostels, Fire Stations, Police Stations, Police Headquarters, Offices, Ambulance Stations, Clinics, Training Centres, etc., etc.

Pleasant offices in County town and good working conditions.

The appointments are subject to the National Scheme of Conditions of Service; the Local Government Superannuation Acts, and the passing of a medical examination.

The County Council are prepared to grant a lodging allowance of 35s. per week to married applicants maintaining a home outside the geographical County for a period of six months, and also to give consideration to financial assistance towards removal expenses.

Forms of application, which must be returned within 10 days from the date of advertisement, may be obtained from the County Architect, Green Hall, Lichfield Road, Stafford.

T. H. EVANS,
Clerk of the County Council.
2528

WILTSHIRE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT

Wiltshire has a large and expanding building programme and it has been decided to recruit a new group who will deal with all types of County projects.

There is considerable scope for imaginative design and opportunity for acquiring experience in a progressive Office with good working conditions.

Applications are invited for the following posts:—

GROUP LEADER, Scale "B," £1,285—£1,485.
ASSISTANT ARCHITECT, A.P.T. IV, £1,065—£1,220.
ASSISTANT ARCHITECTS, A.P.T. III, £880—£1,065.
ARCHITECTURAL ASSISTANTS, Special, £785—£1,070.
ARCHITECTURAL ASSISTANTS, A.P.T. I and II, £610—£880.
ARCHITECTURAL DRAUGHTSMEN, Miscellaneous Division, £590—£650.

An applicant for the post of Group Leader must be an Associate of the Royal Institute of British Architects and have had at least five years' experience on major projects. Preference given to qualified Architects for the posts graded A.P.T. III and IV and to Assistants undertaking a course of study leading to qualification for the remaining posts. Day release may be considered in certain circumstances. Previous Local Government experience is not essential.

The appointments are subject to medical examination, the National Scheme of Conditions of Service and the provisions of the Local Government Superannuation Acts 1937-53, and determinable by one month's notice in writing on either side. Alternative Saturday mornings are free and canteen facilities available.

Applications should be submitted on forms to be obtained from the County Architect. Completed forms, accompanied with the names and addresses of three referees, should be returned to the Clerk of the County Council, County Hall, Trowbridge, within 14 days after the appearance of this advertisement. 2554

LONDON COUNTY COUNCIL
ARCHITECT'S DEPARTMENT

ARCHITECTS (up to £1,250) required for Housing, Schools, General and Special Works Divisions. Full and varied programme of new work including schools, multi-storey flats and town development. Starting salaries according to qualifications and experience. Particulars and form from Hubert Bennett, F.R.I.B.A., Architect to Council (EK/AJ/169/8), County Hall, S.E.1. 1874

COUNTY BOROUGH OF EAST HAM
CHIEF ASSISTANT PLANNING OFFICER

Applicants must be A.M.T.P.I. and capable of taking charge of the planning section of the Borough Engineer's Department. The salary will be in accordance with A.P.T. Grade (£1,225—£1,375) plus London weighting. A salary may be paid within the scale according to experience. A car allowance is paid. The Council will assist with removal expenses and a subsistence allowance may be paid for a reasonable period until suitable housing accommodation is obtained. The person appointed will be immediately concerned with the first review of the Development Plan and with the preparation of Redevelopment Schemes.

Generally, the post offers a wide experience in problems typical of a planning authority in the Greater London Area.

Application forms, returnable by 15th August, are obtainable from Town Clerk, East Ham, E.6. 2555

COUNTY COUNCIL OF THE WEST RIDING OF YORKSHIRE
OFFICE OF THE COUNTY ARCHITECT

Applications are invited for the undermentioned appointment in the Harrogate Divisional Office:—

ARCHITECTURAL ASSISTANT or BUILDING SURVEYOR, Grade A.P.T. II (£765—£880 p.a.), to deal with maintenance, adaptation and minor capital works.

Applications, stating age, qualifications, experience, present position and giving the names and addresses of two referees, to be delivered to the County Architect, Bishopgarth, Westfield Road, Wakefield, not later than the first post on Tuesday, 16th August, 1960. 2561

WIDNES CORPORATION
BOROUGH ARCHITECT'S DEPARTMENT

Applications are invited for the appointment of SENIOR ARCHITECT, Grade A.P.T. V (£1,220—£1,375). The duties of the post will include work in connection with a varied Housing, Education and general programme, including a College of Further Education, Secondary Grammar and Modern Schools, Municipal Offices, and Civic Centre.

Five-day week; housing accommodation to rent or lodging allowance in lieu for married applicants; removal expenses in full; superannuation scheme. Candidates must be associate members of the R.I.B.A. and suitably experienced.

Applications, quoting two referees, by 31st August, 1960, to Borough Architect, Brendas House, Widnes.

FRANK HOWARTH,
Town Clerk

Town Hall,
Widnes.
27th July, 1960. 2557

BOROUGH OF GOSPORT
APPOINTMENT OF ASSISTANT ARCHITECTS (TEMPORARY)

Applications are invited from suitably qualified and experienced Architects for the following temporary posts in the Borough Engineer's Department:—

(*a*) ASSISTANT ARCHITECT, Grade A.P.T. V (£1,220—£1,375).
(*b*) ASSISTANT ARCHITECT, Special Class (£785—£1,070).

The above appointments are being made to undertake the project of extensive additions to the Town Hall, Council Offices, Council Chamber, etc., and will be of a temporary nature determinable by one month's notice on either side, but are expected to last for a minimum period of two years.

Post (*a*) is one of responsibility, requiring a high degree of initiative, and applicants must have had good experience in design, job planning and organisation in work of this nature and magnitude. The person appointed will work under the direction of the Chief Assistant Architect.

Post (*b*) applicants will be expected to assist in the above scheme or in the general work of the Architects' Section, including the redevelopment scheme for the town area and general housing work, as required, and should have good general experience of design and working drawings.

Applications, stating age, qualifications, experience, etc., together with the names and addresses of two referees, should reach the undersigned not later than 18th August, 1960.

EDWARD ADDENBROOKE,
Town Clerk.

Town Hall,
Gosport. 2559

BOROUGH OF TOTTENHAM

Applications are invited for the following established posts:—

ASSISTANT ARCHITECTS (3)—A.P.T. Special Grade: £785 to £1,070 per annum plus £25, £40 or £45 per annum London weighting allowance.

Applicants must have passed Parts I and II of the R.I.B.A. Final or Special Final examination or their equivalent and to have had at least five years' experience (including period spent on theoretical training). Five-day week; canteen facilities; Sports Club with private accommodation for sports and recreational facilities; percentage of removal expenses reimbursed.

Application form and Conditions of Appointment from Borough Engineer (AJ), Town Hall, N.15.

Applications to be delivered not later than Monday, 22nd August, 1960. 2570

ANTITY SURVEYORS required by:—
ANTITY SURVEYORS required by:—
Admiralty
War Department
Air Ministry
Ministry of Works
Ministry of Education.
Vacancies in London, Provinces and occasionally
erseas. London salaries for suitably qualified
d experienced men over 25 years of age range
m £830—£1,500 p.a. QUANTITY SURVEYING
SISTANTS and others having some experience
Quantity Surveying at salaries ranging from
£ 10s.—£900 p.a. also required. Prospects of
omotion and pensionable status. Write for
rticulars of vacancies in each Department and
ms, quoting JQS, to Ministry of Labour,
chnical and Scientific Register (Room 403),
King Street, London, S.W.1. 2571

PUBLIC NOTICE

36s. per inch; each additional line 3s.

AMERSHAM RURAL DISTRICT COUNCIL
CIVIC CENTRE SITE, AMERSHAM
The Rural District Council have acquired for
velopment land included in the Town Map
nersham as a Civic Centre.
Included in the development are proposals
:—
a) Two blocks of multi-storey (Higher Income
Group) flats;
b) One block of multi-storey commercial offices;
c) Council Offices and Council Chamber;
d) Other Civic development, *e.g.*, Courts of
Justice, etc.;
respect of which outline planning permission
principle has been obtained.
The whole area is to be treated as one scheme
the purposes of ensuring that architectural
d landscaping amenities are provided and
intained in accordance with the general prin-
ples laid down by the Council's Architect.
The Council are prepared to consider tenders
m estate developers for that part of the
velopment shown in "A" above on the basis
a building lease or leases of the area to be
veloped.
The period of the lease or leases will be
stricted to ninety nine years.
Copies of a location plan of the site and the
ncil's statement as to the general principles
be observed with a diagrammatic layout can
obtained from the undersigned together with
m of tender and the conditions of tender upon
yment of a fee of £5. 5. 0. which shall not be
urnable.
Dated this 22nd day of July, 1960.
H. E. BUXTON,
Clerk to the Council.
2496

rchitectural Appointments Vacant

per line; minimum 12s. Box Number, including forwarding replies, 2s. extra.

ENIOR ASSISTANTS required immediately.
Salary by arrangement. Theo. H. Birks, 38,
rtland Place, London, W.1. LAN 7236. 1480

RCHITECTURAL ASSISTANT required in
North Wales Office. Office experience
ential. Write giving full particulars to J. M.
rter & Co., The Estate Office, Colwyn Bay. 2251

OOTH, LEDEBOER AND PINCKHEARD
require ASSISTANTS in the salary range
0—£1,250. Apply 17-20, Mason's Yard, Duke
eet, St. James's, S.W.1. Tel. TRAfalgar 1866.
2271

SSISTANT ARCHITECT required for senior
position in private office, London, W.1.
2270.

"SENIOR AND ADVANCED" ASSISTANTS
with initiative required immediately to
rk on varied and interesting projects with
minimum supervision. Congenial working
nditions. Excellent salaries offered for com-
ent assistants. Write, stating age, experience
availability, etc., to Messrs. J. W. Hammond,
yds Bank Chambers, Main Road, Gidea Park,
mford, Essex. 2200

RCHITECTURAL ASSISTANTS required in
busy Bloomsbury office with varied practice.
od salary and prospects for suitable applicants.
ve-day week. Write giving particulars of age,
alifications, experience, etc., to Box 910, c/o 7,
tic Street, W.C.1. 8815

ONALD WARD & PARTNERS have imme-
diate vacancy for ASSISTANT ARCHI-
CTS with initiative and some experience, for
eresting, commercial, industrial and civic
jects. Salaries commensurate with ability.
ply, 29, Chesham Place, S.W.1. BELgravia
5638

EWIS SOLOMON, KAYE & PARTNERS,
rapidly expanding practice require ARCHI-
CTS and ASSISTANTS with initiative and
petence to work on major design projects in
London area. These projects include Compre-
sive Development Schemes, Hotels, Schools,
ces, and Luxury Flats. Good salaries accord-
to ability and experience, luncheon vouchers,
-day week, and excellent working conditions.
te 5, Holborn Circus Thavies Inn House,
.1, or telephone CITy 8811, quoting SLB in
l instances. 7700

RCHITECTURAL ASSISTANT required,
with at least two years' office experience.
ly in writing to Thomas Mitchell & Partners,
Bedford Square, London, W.C.1. 7282

MONRO AND PARTNERS require ARCHITECTURAL ASSISTANTS of Intermediate/Final R.I.B.A. standard in their London, Watford, and Glasgow Offices for work on interesting industrial and commercial projects. Salary range £800—£1,000 p.a. Non-contributory Pension Scheme. Five-day week. Apply in writing to 32, Clarendon Road, Watford. 8589

ARCHITECTURAL ASSISTANT, about Intermediate standard, required for general practice in North Devon Office. Pension scheme. Box 9744.

£1,000/£2,000 p.a. will be paid to experienced competent ARCHITECTS by a private practice in the City of London. The work will be primarily on the drawing board on new and interesting projects of magnitude. A high standard of design and detailing ability is required. Please apply in writing to Box 9360.

ARCHITECTURAL STAFF, all grades, required for interesting work. Good salary, bonus, superannuation scheme. House Purchase Assistance Scheme. Excellent working conditions, five-day week. Please apply, giving details of qualifications, experience and salary required to: George Brown & Partners, A./A.R.I.B.A., F.I.A.S., and Eric Ross, F.R.I.B.A., Equity & Law Building, Baldwin Street, Bristol, 1. 9458

ARCHITECTS and ASSISTANT ARCHITECTS required for interesting commercial, industrial and civic projects. Responsibility and initiative encouraged. Five-day week, good salary commensurate with ability and experience. Ronald Ward & Partners, 29, Chesham Place, S.W.1. BELgravia 3361. 9246

BUSY City Firm engaged in industrial and commercial work requires ASSISTANT of Final standard with several years' office experience. Five-day week. Luncheon vouchers. Salary by arrangement. Box 9227.

BASIL SPENCE & PARTNERS require qualified and experienced ARCHITECTS to fill positions of responsibility on a major building programme. Write to 48, Queen Anne Street, W.1, stating experience and salary required. 9224

NORTH & PARTNERS, Chartered Architects, Broadway, Maidenhead, require additional ARCHITECTURAL ASSISTANTS for widespread and varied practice. Salary range £780—£1,250 p.a. 1890

INTERMEDIATE to Final ASSISTANTS required immediately. Salary according to ability and experience. Theo. H. Birks, 38, Portland Place, London, W.1. LAN. 7236. 9739

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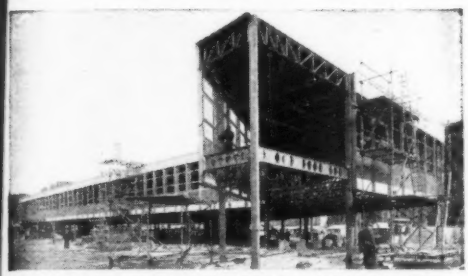
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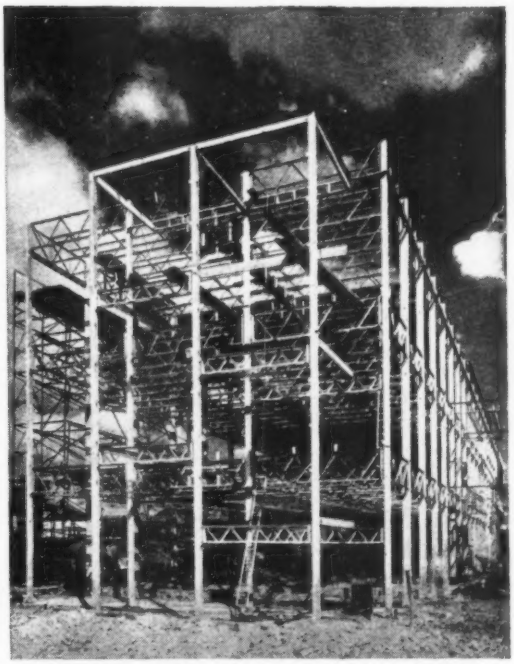
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